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A Quarterly Journal on the Railways of the Middle East
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56:1. A Messianic vision ! Thanks to Paul Cotterell and Shmulik Michaeli of Barchana Architects of Tel Aviv, we have a computer-generated image of what the rebuilt and expanded (three platform) Jerusalem Station could look like in the relatively near future. The idea is clearly to retain and enhance the existing orginal station building but with a new island platform (and glass canopies) reached by subway so as not to compromise the surface appearance of the building

56:2.

EDITORIAL.

Another composite issue. It is hoped to master some of the technical problems which still from time to time bedevil production - partly because the printer sometimes has to scan from the discette, which leads to occasional bizarre misspellings (in addition to those which the Editor alas from time to time leaves in the text - but he cannot take responsibility for "sorne" for "some".) The Euro symbol also seems hard to get right - maybe because Harakevet is printed in England, which has still not joined the Euro !

Once more there is a lot of 'hot' news from Israel and the Near East, but also a lot of 'old' items for one of the aims of Harakevet is to gather and preserve in accessible form odd articles, newspaper news items and excerpts from books, in various languages and from various countries, so that future researchers have at least as much as possible within our pages. Sometimes these accounts supplement each other, sometimes they contradict one another, sometimes spellings and dates and mileages vary widely - but they are all part of the 'historical record'. In the same spirit we include many technical details of I.R. Tenders and such forth from Aharon, or eyewitness accounts from Sybil, because within a couple of years, it is clear, things will have changed so completely that these will become also valued elements of History.

Enjoy !

56:3.

The new Beersheba Central Station on opening day, 20th. April 2000, looking out from the circulating area through archways to the platforms. (Photo: Paul Cotterell).

56:4.

NEWS FROM THE LINE.

a). THE NEW GENERAL MANAGER.

Yossi Snir commenced his post on 26.12.2001. He lives in Rishon leZion, is married with three children. Aharon Gazit has sent a brief biography, from which I extract:

"He was born in Poland 19.09.46 and brought to Israel as a baby. He finished the Navy Officers' School at Akko in 1963, then between 1964 and 1968 studied Naval Architecture at the High Naval Academy of Brest, France, and thus received the first title of Naval Architect. He then finished the IDF Academies of Staff and Command, and of Naval Command, after which he served the Israel Navy as commander of missile ships, and in the research department.

In 1979 he was sent to study Business Management at the Recanati School in Tel Aviv, where he received an MBA in Finance & Marketing. In addition he was sent to the Intelligence Officers' Higher Academy at Norfolk, Virginia, after which he became a Colonel and served the Navy until 1987. In this year he formed a company for securing ships against terrorist and pirate attacks. From 1987 to 1993 he also worked as General Manager of the Rishon LeZion Municipality; in this period the city grew enormously and he gained much experience in Management. From 1994 to 1996 he was General Manager of the Ministry of Industry and Commerce, where he managed to introduce new systems which helped to open new markets and foreign investments. From 1996 to 1998 he was Director of several companies, as well as being the representative of the De Beers consortium, which deals in diamonds. From 1998 to 2000 he had an independent company dealing with engineering project enterprises and implementation of new infrastructures."

Well, it seems we can look forward to great expansion in the Rishon LeZion area ! His military and Intelligence experience may also lie behind a reported reluctance to press electrification options (see below), since by nature these systems are more vulnerable to attack on fixed installations. More one cannot tell at present - there is of course a noticeable lack of any railway experience in this C.V., but then, it is not as though Israel is swimming with experienced railway managers. We wish him well in his new post.

b). YET MORE STATISTICS.

We are presenting these with almost monotonous regularity, but it is important for the record, and of course each issue covers three (or four) months' worth of news. So:-

December 2001: From a press release of 08.01.02: 1.5M passengers in December , 31% more than in December 2000; 18M passengers in 2001 in total used rail - 19% more than in 2000. The annual figures show: On the Tel Aviv - Ashdod line, 2.5M, a 33% increase; on the Tel Aviv - Rosh HaAyin line 560,000 - an 88% increase; on Tel Aviv- Beer Sheva, 1.7M - 125% increase. On the Beer Sheva - Tel Aviv trains on a Thursday there is standing room only from Beer Sheva Central Station already! Yossi Snir, the new I.R. General Manager, aims to double-track the line to Beersheva as a priority. He claimed the figures demonstrate that the public are "voting with their feet", and recognise the railways as an efficient mode of public transportation. He has declared his aim as being to continue the improvement and enlargement of the network, with further new lines, stations and trains, thus making the railways into a major player in the Israeli economy, he added that the budget must be increased significantly!

On the other hand, he seems to be against electrification as a priority.

January 2002. A press release of 06/02/2002: During January 2002 1.5 Million passengers used the rail system - the same as in December 2001, but 33.5% more than in January 2001.

Ashdod - Haifa /Nahariyya and Ashdod -Tel Aviv each carried abourt 350,000 passengers, a year-on-year rise of 58% over Jan. 2001. As usual in recent

years, the sharpest rise is on the Tel Aviv - Beer Sheba line, up to 200,000 - a rise of 92%! Mr. Snir added that the forecast for 2002 is 18 Million, which will require further improvements in efficiency in service.

c). TENDERS.

(Note: Some are mentioned separately in conjunction with other reports.)

(i). HN/KB/04/02: **To build an underground pedestrian passage** under the Haifa - Nahariya suburban line at Brodetsky Stzreet, Kiryat Haim. Time for implementation: 7 months. Bids by 25/02/2002.

(ii). HN/KB/08/02. **Upgrading the main line Rosh HaAyin - Lod;** infrastructure works at Rosh Ha-Ayin - Rinatya section, km. 92.050 - km. 98.00

(iii). HN/KB/09/02. Upgrading the main line Rosh HaAyin - Lod; infrastructure works at Rinatya - Ben Gurion Airport section, km. 98.000 to km. 104.000.

(iv). HN/KB/10/02. **Upgrading the main line Rosh HaAyin** - Lod; infrastructure works at Ben Gurion Airport - Lod section, km. 104.00 to km. 109.850.

Time for implementation for each section: 5 months.

Last date for bidding: 06/02/2002.

Notes: The whole upgraded line is part of the historical Kantara - Haifa line originally built by the British Army in World War 1, and is intended to provide both a ring line around the Greater Tel Aviv area, and connections between Kfar Sava, Rosh HaAyin, Ben Gurion Airport, Lod, Rehovot, Rishon leZion, Ashdod, Ashkelon, Beer Sheva and Jerusalem. Thus history will repeat itself, and Lod station will become again an important junction, where passengers will be able to change trains to all necessary destinations.

(v). HN/KB/11/02. Rebuilding four bridges on the Rosh HaAyin - Lod main line. Works include: adding beams, piles and new beddings of concrete on three of the four bridges, while the fourth is to be replaced by a new pre-stressed concrete culvert.

Time for implementation: 5.5.months.

Bids by: 07/02/2002.

(vi). RK/RS/01/02. A multi-year contract for supply of electrical equipment. This to include also spare parts, and is destined for all railway facilities between Nahariyya in the North and Dimona in the South. Initial 12 months with optional extensions up to 48 months. Bids by 20/02/02.

(vii). BN/KB/05/02. **Building the Sokolov station at Kfar Saba.**
Works to include: Station building, toilets, and operational rooms, with an overall area of 900 sq. m.; two side platforms, each 4.70m wide and 200m. long; sanitation systems, electric supplies, low voltage; elevators, forced ventilation; underground pedestrian passage, and a parking area for 200 cars.

Time for implementation: 14 months; bids by 26.02.2002.

Note - this is to be the second station in Kfar Saba, after the Nordau station currently under construction.

(viii). HN/KB/13/02. **Infrastructure works for the new line** between Nordau station - now under construction - and Sokolov Station to be constructed simultaneously with this line - see tender BN/KB/05/02. Works include: Infrastructure works for track, earthworks, and supporting walls between the two stations above-mentioned.

Time for implementation: 6 months.

Bids by: 25/02/2002.

(ix). MC/RC/01/02. **For the Manufacture and Supply of Wheel Boring Machine**. With an option for the manufacture and supply of additional wheel-boring machines for an additional period of up to three years.

Bids by 18/03/02.

(xi). HN/KB/03/02. **Adding a third track on the Ayalon railway.**

Work is divided into two sections:

km. 93.450 up to km. 94.100 just south of Savidor station.

km. 96.100 up to km. 96.700 south of Hashalom station.

Works include strengthening the wall of the Ayalon canal (wadi) and track infrastructure.

Time for implementation: 10 months, bids by 24/01/2002.

(xii). TK/KB/03/02. **Laying communication and signalling cables** along the third track along the Ayalon line between Tel Aviv Central (Savidor) and HaHagahanh Stations. To include supply of various kinds of cable, uncovering, opening and closing concrete ducts or laying new if necessary, laying main cables - coppper and optical - within the ducts, supply of cable sets, installation and connections of pedestals, supply and installation of end boxes and Krona blocks and checking all the equipment before handing over to the railways. These works to be carried out hand-in-hand with the track tripling, in coordination with the subcontractor, and the time of implementation is to be coordinated as well.

(xiii). BN/KB/09/02. **Construction of Ramle Station.**

Works include: station building, roofs over entrance and platform, a side platform, parking area for 80 cars, electricity and communications, sewage and drainage, signs, as well as dismantling of various existing structures.

Time for implementation: 7 months; bids by 20/03/02.

(xiv). HN/KB/17/02. Embankment stabilizing works on the line Tel Aviv South - Lod.

Works include: earthworks, anti-corrosion works etc.

Time of implementation: 45 days.

Bids by 14/03/2002.

(xv). BN/KB/06/02. **Upgrading of the Stations at Lod and Kiryat Gat.**

Works include: Rebuilding of station buildings, construction of elevator towers and installing elevators, bridges and stairs; these additions are meant mainly for disabled passengers to improve existing facilities unsuitable for them.

Time for implementation: 8 months for each station, Bids by 20/03/2002.

(xvi). HN/KB/18/02. & 19/02. **Double-Tracking Peleshet Junction - Ashdod-Ad-Halom line.**

Infrastructure works on Section No. 1 between km. 131.000 and km. 137.00;

Section No. 2 between km. 137.000 and km. 140.000.

Works include: preparation works and dismantling, earthworks, roadbeds, ballast, drainage, reinforced concrete works on viaducts and various structures, works at level crossings, various works for the second track and for rebuilding the existing one, bridges over the Lakhish river and an option for viaducts over Yavneh river on Section No. 1.

It should be stressed that the whole section to be doubled and upgraded is heavily used by freight trains to and from the Port of Ashdod through Peleshet Junction, and double-tracking will not only relieve congestion but also pave the way for the planned revival of passenger services between Ashdod and Ashkelon.

Time for implementation of each section: 15 months. Bids by: 08/04/2002.

(xvii). HN/KB/20/02. **Rebuilding two bridges on the Beer Sheva - Dimona line.**

Works include: rebuilding of bridges over the Nevatiom and Aroer rivers. These works are part of upgrading the line towards reintroduction of passenger services between Beer Sheva and Dimona.

(xviii). HN/RC/01/02. For the manufacture and supply of Oak wooden sleepers. Approximately 3000 will be required over three years. Bids by 04/04/2002.

(xix). HN/KB/01/02. Building an Embankment and Infrastructure for a track to create a triangle arm at Mamshit Junction between Tzefa and Oron (phosphate ore lines.)

Works include: building an embankment and infrastructure for a track between Tzefa and Oron, supply and laying of concrete ducts for cables, and building viaducts.

Time of implementation: 4 months. Bids by 19/02/2002.

(This will provide a north-to-south arm to what will become a triangle junction.)

(xx). BN/KB/03/02. Building the Rosh haAyin Tzafon (North) - also called Kessem - Station, on the main line Rosh haAyin - Kfar Sava now under construction; this station will be an integral part of the line.

Works include: Station building, main and island platforms, an underground pedestrian subway, toilets, and ticket office building.

Estimated implementation time: 10 months, Bids by 21/02/2002.

(xxi). MC/MT/91/02. Consulting and follow-up services regarding rebuilding and overhauling diesel engines.

Works include: Commitment for constant working at the railways depots.

The contract is for 24 months, with an additional optional extension up to 48 months. Bids by 07/02/2002.

(xxii). MC/SR/04/02. Providing cleaning services at the railways machinery facilities at Haifa.
Services cover Efraim (Kishon) Works, Loco Depot, Passenger Carriage Depot, and offices of Rolling Stock and Procurement departments.

Contract is for 12 months with optional extension of up to 48 months. Bids by 06/02/2002.

d). THE MOD'IN LINE TO JERUSALEM.

IR will probably use a tunnelling system on the proposed fast link to Jerusalem, since it has been found that there would be some low road bridges at the entrance to the city which will mean constructing the station somewhat lower, and the alternative (albeit cheaper) option would be to create steeper gradients at the end of the line.

Detailed planning for the section between Ben Gurion Airport and Modi'in has begun, and it is hoped to be finished within 6 months.

The 20km. link will include bridges with an overall length of 6km., tunnels totalling 2km., three railway stations (two of which in Modi'in) and flyovers. The detailed design will cost $3M, while building the entire line (including stations) will cost $32M.

e). NEW CONTROL CENTRE.

From RGI 1/2002: **"IR Centralises".**

On 2/12/2001 IR called tenders for the construction and fitting-out of a Network Management and Traffic Control Centre at Hof HaCarmel station near Haifa; the NMC will take over supervision and management of the entire rail network, whilst the TCC will assume direct control of operations on the Tel Aviv - Haifa -Nahariyya main line using CTC equipment. Turnkey bids are due by March 4th.

f). EXPANSION DETAILS:

For the record - also from RGI - some of this has already appeared in Harakevet:

"On Nov. 20 2001 IR opened a third track between Tel Aviv Savidor and University stations; built over 20 months at a cost of US$8M, the extra track will allow the Rosh haAyin suburban service to be stepped up from 32 to 48 per day. Work is under way on an extension from Rosh HaAyin to Kfar Sava and a new station is to be built within 12 months at Kiryat Arieh between Bnei Berak and Segula. Tenders have also been called for the refurbishment of Beer Sheva North station under a US$15M to restore passenger services to Dimona, 36km. to the southeast."

g). THE RISHON LE-ZION LINE.

From the 'Jerualem Post' of 24/01/02: "Work on the line from Tel Aviv to Rishon Le-Zion is scheduled to begin in March, at a cost of about NIS 170 Million. The line is expected to open in October 2003.

According to IR Director-General Yossi Snir, travel time will be only 20 minutes, compared to about 90 minutes by car in the rush hour ! He said the new line will significantly reduce traffic congestion. the line will start at the Gan HaVradim (Rose Garden) junction and go through to Beer Yaacov.

Initially there will be two trains in the appropriate peak hour direction each day, with one continuing to Petah Tikva and Kar Saba. The projected number of passengers is 700,000 a year. At the same time, work is to start on developing a line form West Rishon Le-Zion, to be completed in 2006."

[The direction is given as from the terminus to the main line, not the other way around. Can one really believe that two trains in each direction per day are planned ? We thought the days of such timetabling were past..... Ed. Sybil notes the new line will be 3km. long and will provide only an indirect dog-leg route to Tel Aviv - shades of the early attempts to run trains from Petah Tikva to Tel Aviv in the 1920's !]

To this, Aharon Gazit has sent the following:

Tenders: The Rishon LeZion (Roses Garden) line.

Tender BN/KB/04/02 includes the following:

1. Station building.

2. Additional Option - development of the area and external lighting. Time of implementation of the structure: 14 months, option: 2 months. Bids by 18.02.2002. This will be the terminus of the new line between Beer Yaakov and Rishon LeZion.

Tender HN/KB/16/02 is for construction of railway bridges between Beer Yaakov and Rishon- Le-Zion, to include:
Structure 01 : a bridge over road 4313;

Structure 02. A bridge over an underground walkway.

Structure 03. Optional - construction of columns for a road bridge.

Implementation - 8 months for 01 & 02, 5 months for 03, bids by 19/03/02.

Tender HN/KB/12/02. Building the suburban line between Beer Yaakov (on the Lod - Rehovot line) and Rishonim (Roses Garden) station in Rishon-Le-Zion, an overall length of 3km.

Works include: Infrastructure, pavement, and drainage, supporting walls of strengthened soil, re-inforced concrete channels, viaducts and landscape works.

Time for implementation: 10 months. Bids by 14/02/2002.

h). JERUSALEM LIGHT RAIL.

Sybil Ehrlich writes that Jerusalem is full of big signs erected by a construction company and the municipality warning of works for the Light Railway

project; Jaffa Road is to be 'under construction' with traffic restrictions for a period of 14 months, so clearly something heavier than a normal resurfacing is planned.... Aharon Gazit reports that a leaflet has also been sent to those most affected by the works, declaring that "The Light is Under Way"; an English version has also been prepared.

The "Jerusalem Report" in late February 2002 also had a full article on the scheme.

Back in January the Government Inter-Office Tenders Committee had decided to provide a security network for the competing groups at the final stage of the tender. The committee intends to publish annual forecasts of the number of LRV users, in case useage is less than forecasted, the government will compensate the concessionaire at 60% of the difference; similarly in case of passenger traffic higher than forecasted, the government will receive a return of 25% of the difference.

It was this committee which put back the final date for representation of proposals to March 2002, hoping that the procedures of clonsulting with the competing groups, and the changes made to the tender documents, would enable then a winning group to be chosen. The plan for the first line has been distributed in leaflet form to the public, in the hope of useful responses. The committee anticipates that the plans which have been shown to the public will become valid upon the signing of the concession agreement.,

Recently the Transportation Ministry and the Municipality of Jerusalem had started the infrastructure works, as noted above, with removal of obstructions and building public transport lanes along the whole alignement of the Line 1 from Pisgat Ze'ev through Jaffa Road and the city Centre to the terminus at the top of Mt. Herzl. The cost of these works is $90M out of the planned total of $400M.

i). TEL AVIV LIGHT RAIL.

From the 'Jerusalem Post' of 22/02/2002:

TA transit project thrills foreign firms. By Tal Muscal

"Foreign companies involved in mass transit design and engineering showed enthusiasm yesterday for the Tel Aviv Mass Transit System project, scheduled to start operation in 2009. "This is the most important mass transit project in the world," said Michael Schneider, executive vice president of Parsons Brinckerhoff and president of its consulting arm. "Tel Aviv is already paralyzed by traffic, and is the world's leader in motorization." The New York City-based engineering company has been involved in many American transportation projects, including the first New York City subway line, the Bay Area Rapid Transit (BART) in San Francisco, and Atlanta's MARTA system, as well as the Cairo Metro, Jakarta Mass Transit program, and many US-based large infrastructure projects.

"The project has been very long in development, and is well thought out. Its magnitude will require more years of intensive work, but we are involved in Israel and are interested in any local railway project," said Lawrence Lumbroso of Paris-based Alstom, a supplier of light railway, metro, and commuter train systems across the globe. Alstom is partnered in the City Pass group with Elco Ltd., Ashtrom Ltd., Poalim Investments, and the international consortium CGEA in bidding on the Jerusalem Light Railway concession.

Schneider and Lumbroso took part in a conference organized by NTA-Tel Aviv Mass Transit System, where dozens of representatives from local and international companies received information on the system's first route. Estimated at an investment of NIS 4 billion, the 22-kilometer Red Line will be the first of four lines that will become Israel's largest civilian project. It will be constructed under the BOT (build, operate, transfer) method. The winner will construct, operate, and maintain the railway and its stations for 32 years. According to NTA director Tzvi Leshem, the line's prequalification tender will be published in the latter half of this year.

"This is a very challenging project for us, and while there are still a few open issues, we are very satisfied that the Israeli government is 100 percent behind the project," said Siemens executive Manfred Seaake. He added that the German-based firm's possible involvement in the Tel Aviv project would be much more comprehensive than its planned participation in the Jerusalem Light Railway project. Siemens is partnered with Africa-Israel, Feuchtwanger Industries, Hanover-based Uestra, and Canadian Highways Investment Corporation in the Pasim group, which is bidding for the Jerusalem transit project. Speaking from his Toronto office, John Beck, chairman and CEO of the Aecon Group (owner of CHIC) noted that the Tel Aviv light railway project would require heavy construction. CHIC, one of the three companies involved in the $1.3b. Trans-Israel Highway toll road, has been active in construction projects on the Toronto Subway and Vancouver's elevated railway. "We are in the field of BOT projects. Naturally, with our presence in Israel, we are very interested in both the Tel Aviv and Jerusalem railway projects," said Beck. "Ridership is of course the key to the success of these projects," he added. Both Beck and Schneider have raised the issue of ridership risks as one of the unanswered questions. "What if the government allowed a certain immigrant group to ride for free? We would have to adjust the concession formulas", said Schneider.

According to NTA, the government will guarantee revenue to the concession holder based on a forecast of over 100 million passengers a year for the Red Line and 60 million riders for the second line (Green Line). The Red Line alone is estimated at contributing some NIS 7b. to the Israeli economy, employing 8,000 Israelis. The entire system will include 68 km of tracks and 117 stations, nine which will be underground (on the Red Line).

Attending the conference were many international corporations, embassies, and organizations, including Japan-based Mitsui and Co. and Mitsubishi Corporation, France-based Connex, and the Czech transportation firm, Skoda. Representatives from Bombardier Transportation, which pulled out of the Jerusalem light railway project, were also present. The Montreal-based company has been involved in light rail projects in Turkey, Portugal, Malaysia, and the UK."

j). SHED OPENS.

The new shed for maintenance of double-deck coaches at Lod depot was officially inaugurated on Tuesday 12th. Feb.

k). ANOTHER NEW ROUTE - THE KARMIEL LINE.

From the 'Jerusalem Post' of 31/01/02:

"Transport Minister Ephraim Sneh yesterday instructed Yossi Snir... to speed up the planning of a line from Acre to Karmiel and Upper Galilee before the end of this year. The line is to be 22km. of double track, running parallel to Road No. 85 at an estimated cost of NIS 640 Million.

Three stations are proposed, at the village of Makr, at Moshav Avihud and in Karmiel. Sneh said the project could be completed within two and a half years of starting work. He added that it is proposed eventually to extend the line to Kiryat Shmona."

l). REHOVOT STATION OPENING.

On 21/02/2002 the rebuilt (new) station of Rehovot was ceremonially opened by Yossi Snir together with Dr, Ephraim Sneh, Gad Yaakoby, and the Mayor of Rehovot Yehoshua Forer. The station had been in operation in its new form for about a month, and was built at a cost of $2.1M, it has entrance halls on both east and west sides, an island platform and two side platforms, a pedestrian subway, parking for 3090 private cars and a special parking area for buses and taxis, a total area of 700 sq. m.

All those speaking at the ceremony referred to Ehud Hadar, one of IR's previous General Managers, who committed suicide, and after whom the station has been named.

It should be noted that a part of the oiriginal station buiilding, dating from 1920, has been restored, moved slightly form its original location, and integrated within the new station.

Mr. Snir said that a furether 150 parking spaces would be added during 2002, and a bus station will also be built soon, as well as the long-awaited road bridge to replace the level crossing which has become now a true bottleneck - there are now 67 trains daily, serving 2.5 million people annually.

Sneh also announced that during 2002 around $240M will be invested in the railways' infrastructure, to include new IC3 sets and perhaps additional double-decker trains, while more than $15 Million will be spent on new stations.

m). STATION WORKS.

Just to help keep tabs on the Station works, IR is currently in the midst of a frenzy of building work that no veteran can ever recall previously.

Currently being built are: Hahaganah on the Ayalon line at Tel Aviv (new); Zikhron Ya'akov (rebuilt and reopened - effectively new); Hertzliya North (new); Binyamina and Beit Yehoshua are being rebuilt (again); Nordau and Sokolov (both new) at Kfar Sava, and Rosh HaAyin North (Kessem) (new) on the line to Kfar Sava; Kiryat Arye (new) and Segula (enlarging) on the Bnei Berak - Rosh HaAyin line; Rishon LeTzion Roses Garden (new, on new line from Beer Yaakov); Ashdod Ad-Halom (rebuilt, effectively new); Kiryat Gat; Beer Sheva North (old station) (rebuilt), Dimona (rebuilt & reopened). Bet Shemesh and Jerusalem to be rebuilt, Lod also undergoing rebuilding.

56:5.

THE OLD LINE TO JERUSALEM - WORKS ON THE BETH SHEMESH ROUTE.

Quite a lot to report here: Tenders have been issued for the upgrading of the 36-km. line from Beit Shemesh and Jerusalem - part of the plan by Ephrain Sneh to renew train services between the capital and Tel Aviv by the existing route.

To recapitulate: Three months ago tenders were issued for the Na'an - Beit Shemesh section. The total cost of the upgrade is estimated at NIS 360 million. Sneh has said works should be completed within two years; travel time from Tel Aviv wll be 55 minutes, with stops at Lod, Na'an and Beit Shemesh, and 1.5M passengers a year are expected by 2005.

At the same time, work is to start soon on construction of the new high-speed line between Tel Aviv and the capital, via Modi'in, with a travel time of only 28 minutes - but this will take at least eight to ten years to build, and because of the urgency of restoring rail links the old line is to be upgraded and will also be used for freight.

(i). Tenders: HN/KB/05/02, Infrastructure works on the section Beit Shemesh - Bar Giyora, km. 50.900 to km. 64.600.

(ii). HN/KB/06/02. Infrastructure works on the section Bar Giyora - Bittir, km. 64.600 to km. 75.600.

(iii). HN/KB/07/02. Infrastructure works on the section km. 75.600 to km. 86.400.

On all: Works include earthworks, piling, concrete, viaducts, environmental treatment for concrete or steel bridges, infrastructure for electricity and communications and - for the first two tenders only - a control building.

Time of implementation for each tender: 15 months. Last date for bids: 11/03/2002.

(iv). Resignalling of the line will be carried out separately by SEL-Alcatel, who are the sole supplier for Israel Railways.

(v) Demolitions at Beit Shemesh station. Sybil Ehrlich has been following events at what was/is/will be again her local station, and sent a whole series of reports:

(a). "This morning (Monday February 18) I noticed that the old buildings surrounding Beit Shemesh station were being demolished. I was on an express bus (non-stop to Jerusalem) so I couldn't get off and investigate. At 08:30 a bulldozer was flattening the area behind the station - the old residential buildings with their ancient rooms and toilet facilities. At that time the water tower was still standing, but who knows whether it will be there this evening?

In today's Jerusalem Post there is an advert. from Israel Railways, an announcement of a tender "For the Manufacture and Supply of Oak Wooden Sleepers", Tender no. HN/RC/01/02.... for approximately 3,000 sleepers. I thought wooden sleepers went out with the Ark, but Amir Pnini enlightened me. They are especially suitable for winding track, hence for the Jerusalem line. On Wednesday there is to be a tour, presumably along the entire line from Beit Shemesh to Jerusalem, for contractors interested in doing this work. I will be there to see what it's all about. The worst that can happen is that they will throw me out....."

(b). "On Tuesday Feb. 19th. the water tower was completely demolished. Unfortunately I was not able to get a photo of it standing in solitary splendour. There is nothing left except a muddy field. This morning (Wednesday February 20) there was a tour for contractors interested in getting the job of upgrading the line. I got there early and had an opportunity to wander around. The stone station house was in process of being cleared out. The area behind the building has been flattened and the wall preventing access - over which I never had the urge to climb! - removed. Workmen were carting out tons of old files, papers, dust and garbage. It would have been impossible to go through all this. I rummaged around a bit and salvaged some items. I didn't see anything more than about 50 years old. Presumably the Palestine Railways people either removed or destroyed everything when they pulled out. I went into the station house and had a good look round. All the doors and windows were open, probably for the first time in decades. The furniture from the Station Master's room has been removed. A length of approximately five meters of track has been removed, between the level crossing and the station house. In addition, earth spills cover the track in a few places. About 50 people turned up for the contractors' tour. Needless to say, most of the explanation given by the IR people was about what kinds of reinforced concrete are to be used, and I can't say I'm terribly interested in that. The difficulties of the terrain were explained, so the contractors can't say they weren't warned! There are three separate contracts - Beit Shemesh to Bar Giora, Bar Giora to Battir, and Battir to Jerusalem. Each section has road access at both ends. All the work is to be on IR-owned land, and everything has been approved by the Israel Nature and Parks Authority. In answer to my questions (asked privately), the

station buildings at Bar Giora and Battir are to be preserved. There will eventually be a bridge at the road crossing adjacent to Beit Shemesh station, but that is not included in the immediate plans. [A Public Works Department sign has appeared a few hundred meters north of the level crossing, saying that section of road is to be widened, and the work to be completed by August 2003. I don't know whether the road bridge is part of this, or whether they will suddenly wake up and realize they have to redo the whole thing!]

The tour continued in the contractors' own vehicles to the area near the Beit Shemesh quarries, Bar Giora and Jerusalem, to inspect the area. I decided I'd seen everything I wanted, and took my haul of ancient treasures home.

New readers may be interested to know that some time at the end of January (exact date unknown) the level-crossing barriers and traffic lights were removed (as they were at the big crossing on Emek Refaim in Jerusalem). On Monday February 18 the residential buildings were being demolished as I passed on my way to work in the morning. By yesterday (Tuesday) evening, the water tower was only a memory. The station house built probably around 1919, when the British upgraded the line."

(c). "On Friday February 25, your intrepid reporter decided to investigate how much of the track was still intact between Beit Shemesh and Nahal Sorek. I started by frantically photographing what was left of Beit Shemesh station. There were workmen still carting rubbish out of the station building. Apparently the signal cabin was to be demolished sometime in the next week, or so I was told by a man who said he works for the company that is rebuilding the station. This wasn't what I understood before.

A short length of track (about 15 meters) had been removed between the Lod end of the platform and the level crossing.

Kilometrage references in this report are the old Palestine Railways official measurements. Most of the PR kilometer posts are still in position. Beit Shemesh (Artuf) is 50.477 and Nahal Sorek (Wadi Surar) is 37.326. Sejed is 39.5 (see Ron Shafir's article in Harakevet No. 51).

The track was intact from Beit Shemesh to a point between km 41 and km 40. From here, the track and sleepers had been removed, but a "Tzadi" sign (Tziftzuf = Whistle) was still there. It was too difficult to walk on the ballast without sleepers, so at this point I left the trackbed and continued on the adjacent dirt path. The level-crossing warning signs on a dirt path just before Sejed were still there, and the track was still in place at the level crossing. Just beyond the km 39 marker post there was ballast piled up on the trackbed in two heaps. I do not know whether this was anything to do with the railway as such, or whether it was just a form of amusement for the local kids. From this point, there were at intervals of what I guess may be about 50 metres small wooden posts about 30 cm high, each with a blue plastic ribbon on it, which seemed to be markers for something.

The Nahal Sorek distant signal post was still standing. Just before Nahal Sorek station a few wooden sleepers had been thrown aside. The Nahal Sorek station building was still there, as was the shed housing the points levers. There were more heaps of old wooden sleepers. The water tower was still standing. All the track had been removed from the entire area.

There is an army camp next to the station, and I was clearly considered a suspicious object. Two soldiers in a jeep came out to see what I was poking around for, but I assured them I was interested in the station, not any military secrets, and they were satisfied.

The track was in place at the level crossing and beyond, as far as I could see. There is a bend to the left here and it isn't possible to see very far. Your footsore reporter thought that was enough for one day, and was happy to see a bus stop a short distance from the level crossing!"

(d). "Some time on Wednesday February 27 the track was removed in the area of the station. It was still intact at 08:40, but by 17:30 it had gone. As usual, I was on a bus, and couldn't see how far up it had been removed. Going towards Lod, it is still in place. At 08:40 there were bulldozers on the "de-railed" track bed, and sheet-metal fencing along the front of the station house."

(e). "On Friday morning March 1, I was at the station at about 9 a.m. All the tracks in the station area have been removed, from the level crossing as far as the new trolley shed. I saw workmen erecting one of two identical signs. The top says:

MISRAD HATAHBURA
RAKEVET YISRAEL
HATIVAT TASHTIT
HIDUSH MESILAT
NA'AN -
YERUSHALAYIM
HAKAMAT TAHANAT
RAKEVET BEIT
SHEMESH

Below that is a stunningly beautiful full-colour artist's impression of the new station, showing three platforms (a side platform and an island platform with two faces). The side platform, on the right, has a station building incorporating the old stone station house. On the left is a double-decker train.

A tractor with an earth scooper was being used to lift up the workmen so they could attach the sign to the poles, which were already in place. I asked the foreman whether it wouldn't have made more sense to assemble the sign before erecting it, but he said that would have necessitated the use of a crane, which is prohibitively expensive.

This sign is at the end of the short street leading down to the station (next to the Big shopping mall). I didn't wait to see the erection of the second sign, as I had things to do in Jerusalem. When I returned at about 13:30, I saw the second sign in all its glory, facing the main road (No. 38) on the left as you come into Beit Shemesh, just before the level crossing."

(f). Today (Sunday March 3rd.) there was to have been a ceremony at the station with the Prime Minister, Transport Minister and other dignitaries, laying the cornerstone of the rebuilt line to Jerusalem. At 08:40 when I passed, there were police barriers around the station, and people putting up flags. By the time I reached work, less than an hour later, the ceremony had been cancelled because of the situation. I'm disappointed, of course, but not really surprised."

(Aharon Gazit adds that those present were to have included Prime Minister Ariel Sharon, Deputy Prime Minister & Finance Minister Silvan Shalom, Transportation Minister Dr. Ephraim Sneh; Deputy Minister of Transportation Avi Yekhezkel, Chairman of Ports & Railways Authority Gasd Yaakoby, Yossi Snir and various Mayors of towns along the line.)

(g). "IN MEMORIAM : Beit Shemesh signal cabin 1928-2002.

The Beit Shemesh signal cabin was demolished on May 5, 2002, after an eventful and extremely colourful life.

Its precise date of construction is unknown. An architect's plan dated October 2, 1928, shows the building with a steeply pitched roof. Apart from the roof, which lost its gables at an unknown date, (a 1951 photo shows it with a flat roof) the building survived virtually unchanged until the bulldozer moved in on the morning of March 5, 2002.

Pictures taken in the early 1930s show an "Artuf" [in English and Arabic] /"Har Tuv" [in Hebrew] nameplate below the roof. There were boards for railway posters outside, whether advertising excursions by train to interesting locations

such as Kantara and Jisr el-Majamie, or timetables, is not known as they cannot be deciphered from the photos. They could even be theatre posters! By the 1970s the building bore a name board identical to the metal station name board recently discovered on the tracks next to the platform and now on display in the Haifa railway museum. Since then, at least two other name boards occupied a place of honour on the roof, one being photographed in 1990 and another - the most recent - in 1997. It is not known what colour the paintwork of the building was before 1989. In that year the window shutters facing Jerusalem were pale grey. The following year all the walls were orange. On March 2, 1993, the window shutters were pink, and the walls stone-colour. At that time there was a vast amount of pink paint on Israel Railways. Perhaps IR acquired a large quantity of pink paint at a bargain price, giving many stations a somewhat peculiar appearance. Strangely enough, on April 16, 1993, the window frames facing Jerusalem were grey - and the walls were not orange - and three weeks later, on May 9, the door facing Lod was pinkish purple! By 1997 all the paintwork - window shutters and doors - was blue. At some time the building probably served as a ticket office, as there were remains of a ticket window. It should be noted that there are also remains of a ticket window on the other (stone) building. Until the signal cabin was demolished, it bore traces of the most recent passenger timetable on the wall below the veranda roof, facing towards Lod. This surprising discovery was made by Itai Birger's brother on October 2, 2002, 73 years to the day since the architect's plans were drawn."

(h). On Monday 11/03/02 a Ministry of Transport Press Release stated that trains would be running to Beit Shemesh by Sept. 2003 - 27 trains in each direction ! A crane was standing on this day on the remains of the platform.

(vi). WORK ON THE JERUSALEM LINE.

Aharon Gazit reports that on a visit on 14/02/02 he found all track had been lifted at Nahal Soreq; there will eventually be an unmanned remote-controlled passing loop here. At Beth Shemesh the water tank had been demolished, the tracks were covered in mud from recent rains but will also be lifted and totally relaid. A platform is to be built, and the little old signal box will probably disappear.

(vii). Rolling Stock Proposals. The concept of purchasing and operating tilting rolling-stock on this line is now being reconsidered. Apparently some consultants have reported that any time-saving due to the use of tilt would only amount to some eight minutes for the entire journey. The really problematical section is of course between Beit Shemesh and Jerusalem, and here it is unlikely that speed will exceed 65 km/h; according to these (unnamed) consultants, tilting will not operate under 70km/h., thus minimising the benefits !

The railways have asked the manufacturer Alstom Ferroviaria for the clarifications, and the decision will be made soon.

56:6.

THE SHTETL LIVES!

"Shtetl" is the Yiddish term for "A Little Stadt", " a little town", and is normally used to refer to the small (and not-so-small) Jewish communities of Central and Eastern Europe. The Editor was amazed to receive a message from Israel requesting help in locating railway equipment for a new Shtetl!

It seems the aim of a group under Gadi Jakob is to recreate an "authentic theme park" on the theme of Jewish life in Europe, a new "Shtetl" at Kfar Hassidim near Haifa. For both decorative and practical purposes (i.e. getting people from the car park) a small railway line is proposed and they are actively seeking contacts who could help!

The Editor has suggested contact with PKP, since the majority of the Polish narrow-gauge lines are being unfortunately closed right now and this means that some rolling stock (some "authentic", some more modern) will be on the market. But does anybody have any more practical help or suggestions? If so, via the Editor please.

56:7.

ROLLING STOCK NEWS.

(a). Two more double-deck trains arrived in the second week of January at Ashdod Port and were to be put into service by the end of the month, bringing the fleet to a total of ten. Four additional trains will arrive during 2002.

However, loco 601 crashed into a trailer coach at Lod depot and damaged it severely ! Early reports in mid-February suggest it might be a write-off !

(b). The five G12's mentioned in 55:5(i) have in fact been sold to Canada Allied Diesels and not as shown. They will be shipped soon to Canada, and possibly rebuilt for resale.

(c). IC3 fire. The fire in the IC3 sets and the rapidity with which it spread reminds the editor of a similar incident on the Salzburger Verkehrsbetrieb on 13th. July 1981, when a second-hand "Silberpfeil" 2-car e.m.u. built of aluminium and bought from the Köln-Bonner Eisenbahn caught fire - 20 passengers and the crew got out before the whole things just melted and sank into itself, the remains having to be tipped over a low embankment to be disposed of later.

d). Latest acquisition at the IRM is SAFB Bo-Bo 102. It arrived from the shrubbery in Kishon Works at 12.15 on 7th March 2002 and was shunted into the museum compound by 131 (ex-T44). 102's basic condition is sound (they knew how to build locos for a long life fifty years ago) but the paintwork is peeling badly. It is intended to clean and repaint the loco in the near future.

e). The Ashdod Port shunter, 007, was noted arriving at Haifa East in freight train 314 in mid-afternoon 12/3/2002. It had presumably come for overhaul at the diesel depot at Haifa.

56:8.

NOTES AND COMMENTS.

(a). ISRAELI IC3's ON AMTRAK. In "Trains" Jan. 2002 p. 30 is a photo of the two Israeli IC3 sets on a trial or demonstration run, in their IR livery but with 'Amtrak' painted on the side of each coach. In 'Continental Modeller' 1/2002, p. 36, is an illustrated review of the Heljan HO model of the IR IC3 set as modified for these trials in America. The models are available from Howes, 12, Banbury Road, Kidlington, OX5 2BT. Price was "to be announced".

(b). On 55:6(a.): Paul points out that Shavei Tzion is, of course (and always has been !) South of Nahariyya.

(c). On 55:5(i). The G12 diesels from IR have been sold to "Canada Allied Diesel", and not as shown.

(d). NESHER CEMENT TRAFFIC. Does anyone have the full story of the loss of cement traffic on IR ? In a recent conversation an Israeli businessman explained that the original 'Nesher' works near Haifa have been closed, and all production concentrated at Ramle - where the rail connection has also been dismantled. There was a project to convey 10M tons of sand per annum from the Negev for cement production, but this apparently goes by road. Can this be true?

(e). ON CARL-FRIEDRICH ZIMPEL. Klaus Matzka has referred me to <www.pharmazeutische-zeitung.de/pza/2001-49/titel.htm>, which comprises a nine-page article by Axel Helmstädter to mark the 200th. birthday of this extraordinary man - born 11th. Dec. 1801 in Sprottau (now Szprotawa) in Lower Silesia. The article is in German and mainly concerned of course with his pharmaceutical works. As a form of "circular references" it should be noted that Harakevet 52:8 and 53:13 are referred to in the footnotes ! To add a little to what we have already excerpted from Helmstädter's earlier work: During his American period he worked a lot in New Orleans and substantially influenced that city's appearance - a railway he built is still operating as a tram route, several buildings (notably the "Bank of Orleans") were erected to his plans. It was he who made the first cartographic survey of the district of Carrollton, and a "Zimpel Street" there testifies to his memory. Back in Europe the Berlin - Frankfurt /Oder line was built to his plans, which were preferred to those of Oberbaurat Dr. August Leopold Crelle. Further activities included consultancy work on the location of the main stations of Stuttgart, Kiel and Hamburg-Altona. "At the end of 1843 Zimpel left his railway activities for reasons which are unclear." He was clearly more than eccentric, believing for example that one should never cut the facial hair, and totally opposed to "the demon Tobacco". Incidentally, the term "Spagyrik" is explained as deriving from "to divide" (Greek: Spaein") and "to reunite" (Greek: ageirein"), and describes the processes used alchemically to extract homeopathic substances from (mainly) plant matter.

(f). ON EARLY GENERAL MOTORS DIESELS. The Editor, who is no technical expert, remains fascinated by the events surrounding the delivery of Israel's first diesel locos (the unique Bo-Bos IR 101-103). An article in "Schienenverkehr Aktuell" 11/96 pp. 41-43 "From Australian B60 to Hungarian M61; Part 1" by Helmut Petrovitsch describes the first developments in GM's European and Australian export successes. But typically, he covers at length the G16 Co-Co variants for many countries, and omits any mention of the the G12-type engines for Israel! Nevertheless, some extracts are given here for purposes of historical context. (Part 2 of the article is in issue 12/96 pp.46-9 and deals with the Norwegian and Hunbgarian variants.)

"In Europe at the beginning of the 1950's there was hardly any main line diesel loco suitable for series production. The pre-war Krupp diesel-hydraulic prototypes, V140.001 of the Deutsche Reichsbahn and Di3.601 of the Norge Staatsbaner had remained one-offs. The twin-engined V200 for the Deutsche Bundesbahn was still at the design stage at Krauss-Maffei. (It was exhibited at the International Transport Exhibition in 1953.) SLM was at the time experimenting with Gas Turbine propulsion (SBB Am4/6 1101, the British Railways 18000), the diesel-electric "Cannon Locos" of the Wehrmacht/DRG, now DB V188, were largely ignored. Therefore the American market leader General Motors - Electro-Motive Division (GM-EMD) pushed even more heavily into the European market with its well-proven and robust product, already in use by the thousand, and fitted as standard with electric braking and multiple control. Denmark, Norway, Belgium, Luxemburg and later also Hungary decided for the GM G-16 export type as a complete solution to their needs, complete with American styling; this was based upon the body form developed for the American FP7 units built for Australia. Other administrations integrated the American diesel-electric motive power unit into their own loco designs (for example, the ÖBB 2050 Class.) The success of the GM "F" units, built from 1940, lay in their low maintenance requirements due to the single engine fitted. The concept comprised several separate motored units in multiple, with a cab at one end and the others as "Boosters" without cabs. The streamlined "nose" form of the EMD E and F types remains today the classic image of American diesels. The slow-running GM 2-stroke engine Type 567 provided 1350hp (1010kW) in its first 6-cylinder version, and with various alterations was developed by 1965 to provide 1950hp (1305 kW). The DC generator attached fed axle-mounted electric motors of 600V, which in the American four-axle version provided an axle-load of 26tons. Between 1940 and 1953 GM-EMD delivered a total of 7,232 four-axle units of different F-type variants in the USA, Canada and Mexico: Up to 1945 1096 FT and 104 F2's of 1350 hp.; 1946-1953 with 1520hp. motors 1807 F3, 3849 F7, 376 passenger locos FP7 (with steam boiler); from 1954 to 1960 a further 240 of the last sub-type F9 (with 1950hp. motor 16-567C) and a further 60 FL9 for alternative third-rail operation with 600V. In the period February 1949 - December 1953 alone 4225 units of the F7/FP7 were delivered to North American railway administrations. In comparison with this flood, the total of 298 units of the G16 export type built under license elsewhere seems very modest. The G16 was extended to six axles due to axleloading limit problems; its bogie centre length of 34 feet was identical with that of the FP7, but there was a longer overhang due to the three-axle bogies. 229 of the G16 license-built engines were, in contrast to the American form, built with cabs at each end; in 1952/3 Clyde Engineering constructed 26 such engines for the Australian Victoria Railways; from 1954 to 1969 the Swedish NoHAB built 104 for Denmark, 35 for Norway and 20 for Hungary - a total of 159; From 1955 to 1957 Anglo-Franco-Belge built 40 locos for Belgium and 4 for Luxemburg. The ÖBB in contrast let Henschel in Kassel build a flat-ended body form with Bo-Bo wheel arrangement around a weaker EMD-transmission unit with 12-cylinder 567C motor. The SJ decided on the T41 and T43 types with a single, central higher-mounted driver's cab. The Austrian and Swedish locos were based more upon the lighter, alternative G12 No. 7707 built in Canada by GM/Henschel (later SJ T42 205.....

In Europe, Nydqvist och Holm AB (NoHAB) in Trollhättan, Sweden - the main European license-holder - modified the Clyde-built double-ended Australian B60 of VicRail with a more rounded roof to suit the European loading gauge and altered front end to fit standard buffing gear. First order came from DSB for the four locos for flat country, A1A-A1A Nos. MY 1101-1104...from 1954 to 1965 DSB ordered a total of 59 of the MY and later 1960-62 a further 45 lighter version MX with 15t. axleload for secondary lines. In the meantime Frichs of Denmark had in 1954 developed a similar-looking engine, Nos. MY 1200/1, but these were a flop and were withdrawn by 1968..... In Belgium the SNCB decided in 1953 to order 95 line diesel locos. It went totally for American types but split the order into 55 Bo-Bos (Type 201) by Cockerill/ACEC using Baldwin & Westinghouse licences, and 40 Co-Cos of types 202/203/204 (depending on boiler provision) following the design of the Nohab/GM prototype 64.2246 built for Norway....."

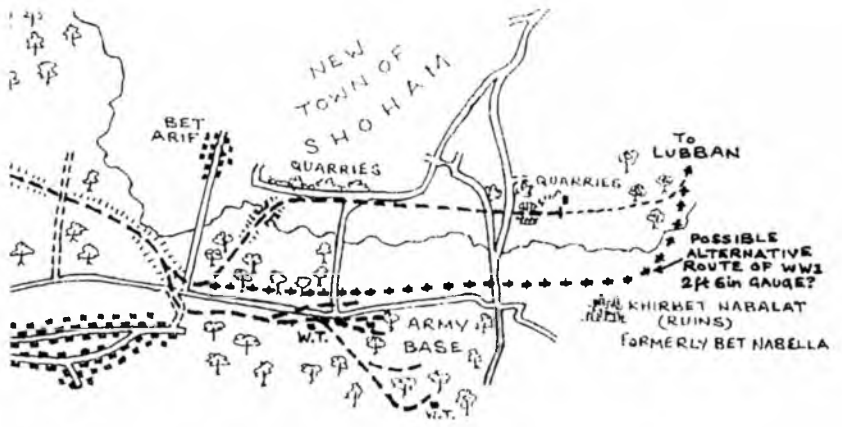
So there we have a little more background - but still no answer to the question - who designed those lumpy-

looking asymmetrical bodies and those Bo-Bo bogies and put a General Motors G12 engine in and sent them off to a new and struggling coal-less country, without in any way apparently developing the design for further export or internal use ? Even the later locos for Ireland were different. Apart from one verbal comment from an Israeli to the effect that Israel saw in Belgium in the 1950's a fellow small and sympathetic country, I can still find no reason for these engines coming from SAFB. (See 11:14 for a brief article on SAFB itself - 101 was the first Works Number in the new Diesel series, and the firm went bankrupt at the end of the 1950's, the license being acquired by Brugeoise et Nivelles. Other references are: 12:12, 14:29, 15:23 and 16:5.) In addition, this article makes no mention of locos Henschel built for Egypt. Ed.

(g). THE ÖBB 2045 BO-BOs AND THE USATC WHITCOMB DIESELS. Back in Harakevet 7:20 the Editor asked the question whether the Whitcomb Bo-Bo design acted as "godfather" to the early postwar Austrian centre-cab twin-hood Class 2045 diesel-electrics built from 1952 onwards. The external styling looked very similar. The question can now (perhaps) be answered in the negative. In "Schienenverkehr Aktuell" 7/96 p.10f. is an article by "Hellein" on a pre-2045 series order for two 914mm gauge B-Bos for the Ferrocarril de Antioquia in Colombia, delivered by SGP in July 1952; after ten months' trials there they were purchased by the railway, but the series order for 80 locos went nevertheless to the American competition. In outline these locos do indeed look very similar to the Whitcombs. However, from separate additional articles by Hellein and Doleschal it appears that even these engines were based on a concept sketched out by Gebus of Austria before WW2, indeed at the beginning of the 1930's at the request of "a foreign railway" that was interested in employing diesel traction. This project also involved a Bo-Bo diesel-electric with central cab and two large hoods each with a 600 hp. motor, the idea being to overcome in this way the then-current limitations on motors and transformers by simply duplicating smaller ones. The planned loco was never built. The similarities between the 2045 and the Whitcombs remain close, but must be put down to "coincidence".

(h). ON THE "RAKEVET YISRAEL" LOGO.

Aharon Gazit vaguely recalls that the "Resh Yod" letters were employed on several coaches in early days and even - he thinks - one of the SAFB Bo-Bos, which



was delivered in plain livery (the red stripes being added in Israel) and withoiut the circular IR emblem as the template had not yet been prepared or sent to the manufacturers. It would of course have made sense for the "PR" emblems on rolling-stock to have been painted over as soon as possible, whatever the shortages and troubles. This was a proud young State!

(i). On 47:11: "BET NABELLA REVISITED".

Paul Cotterell writes: "In 47:11 I presented my findings on the long-lost branch to Bet Nabella along with part of its short-lived WW1 narrow gauge continuation through to Lubban.- Since then something has cropped up to make me have second thoughts about the course of the 2ft. 6in. gauge in the vicinity of Bet Nabella. I am not sure what this may have been, but it has made me reconsider my previous conclusions. The accompanying sketch, (above) revised from that in 47:11, should make things clear. I now think it possible that the original 2ft. 6in. gauge line crossed over the Bet Arif road and then continued on a more-or-less straight course, instead of turning northwards to run past the quarries. This route would take the line closer to the village of Bet Nabella before it swung north across the wadi. If correct, this would explain why I found it "extremely difficult to trace the first kilometre or so of the narrow gauge formation [from the end of the standard gauge]" as recounted in 48:16. It wouldn't be erosion that "almost obliterated the route here" - it would mean that the narrow gauge never went there ! All this is nothing more than speculation, there being no known hard evidence. The 'new' route is certainly feasible from the point of view of topography, the area being quite flat. Also, the railway to Lubban was primarily intended to supply the troops along the front line. I do not know if any quarrying was carried out at Bet Nabella in 1918 to provide incidental traffic for the 2ft. 6in. gauge. if not, then the sugested alternative route slightly to the south may have been a better proposition for getting the line as quickly as possible up to the soldiers in the hills."

(j). NO GERMAN INVOLVEMENT ! In an article in the Dutch newspaper "De Volkskrant" 3/2/2001, p.27, Harry van Gelder wrote about German interest in bidding for the franchise to run the new High Speed Line in Holland, planned from Amsterdam to Rotterdam and on to Antwerp and then Brussels and Paris. But there were problems.... In an interview with Werner Lubberinckof DB-International, the latter states: "The DB will gladly operate also on foreign soil. But, says Lubberinck, we only want to operate trains abroad, when there is a clear connection to our own home market. We are really not intending to operate the high speed line to Jerusalem." So that's all right, then.....

(k). ON 54:3, A LIGHT RAILWAY AT NAHARIYYA. From Paul: Chen Melling kindly sent me a layout diagram of Nahariyya in the late 1930's, along with explanatory text, which add to my previous brief notes on the subject. Plots of agricultural land were laid out at Nahariyya by a company called 'Nahariah Small Holdings Ltd.'. which also successfully drilled for water This company agreed to provide a communal water pipe between the plots of land and also to lay a 70cms. (sic.) gauge railway. Each settler was provided with a small wagon so that he could transport his produce to an internal road for collection and onward distribution The idea for this small agricultural railway was brought by Dr. Suskin from Cameroon in West Africa. Dr. Suskin is considered as one of the founding fathers of Nahariyya, a name meaning The Place of the River, from the small stream called the Ga'aton which runs through the middle of town. One may query the gauge of the light railway; 60cm. seems more likely to me. In the layout diagram it is indicated as a 'Kleinbahn'."

I). ON 55:6 (b) HAIFA ACCIDENT. Paul writes: "Trevor Kletz takes me to task about apportioning blame for the new road bridge at Haifa East coming into violent contact with a train of IC3s. I have checked this out again to be on the safe side. Track 2 was closed to all through traffic at the time. However, the bridge is at the far east end of Track 2, and the rest of this track was used for stabling empty passenger stock with the west end point left unlocked for movements into and out of Track 2. The signalman was required to place plastic safety rings over the panel buttons used for operating Track 2's points and signals. When he needed to shunt a train into or out of Track 2 he simply removed the necessary rings to complete the shunt from the west end, before replacing them over the buttons. I have carried out the same operation numerous times when I was a signalman on IR. All this is By The Book. On the morning of the accident the signalman concerned was still bleary-eyed from his night shift and failed to replace the safety rings after moving empty stock out of Track 2. Trevor is, therefore, at fault for finding fault with me for faulting the signalman and driver!!"

56:8A

PALESTINE RAILWAYS CANTEEN; PRIVATE TOKEN.

By Uri Ben-Rehav.

A short while ago Uri sent me some notes on a strange token - in Hebrew an "Asimon", named after the tokens used in ancient Babylonian bathhouses, and more recently a term used for the special telephone tokens used in Israel until the advent of phonecards.

Uri made contact with Dov Bertov, a leading figure in the Israel numismatic "scene", who was able to provide a copy of a paper he had already written on the topic, and permission to reproduce it here. He does ask though that anyone with any further information should contact him: Uri Ben-Rehav, P.O.B. 642, Bat Yam.

The accompanying notes (slightly edited) are taken from his "Metal Tokens as Trade Coins in Palestine & Israel 1880-1980.":

THE STORY OF THE PALESTINE RAILWAY CANTEEN TOKEN.

The Palestine Railway Canteen, Private Token was issued probably in the late teens of the 20th. century. We know nothing about this issue, who was responsible for it, how it was used and by whom, where the mint was, what was the mintage and how long it was in use. I interviewed a few of the former workers and staff of the Mandate Railway; one of them, Mr. Isaac Nissan, started his job in 1936, but none of them remembers the token. Mrs. Sylvia Haffner, in her book "Judaic Tokens and Medals", p.199, gives a description of the token and relates a story about an exclusive club in Haifa, where the officials of the Palestine Railway gave the token to the bartender for a drink. She writes:

'These were usually issued to the members around the 15th. of the month (when they were broke) and their account was debited accordingly. When the officials received their salaries, they squared their account." In my opinion, this is not the whole story. I add the following, based on what Mr. Zvi Livny wrote in his book "Chapters of the Third Aliyah".

"The British authorities in Palestine declared a tender to open and run canteens in the three main railway stations - Haifa, Lydda and Jerusalem. The man who won the contract was an English Jew, Dov Plotkin. He was very successful and made a lot of money in a very short time, but not for long. He was killed in a train accident at Jaffa on the 6th. Oct. 1920. In the short time in which he ran the canteens he probably issued the token not only for drinks but also for food which he supplied to the railway workers in the stations. After his death this system of credit collapsed and this explains why none of the later workers saw or heard of this token."

"PALESTINE RAILWAY CANTEEN" TOKEN

During the British Mandate in Palestine there existed an exclusive club in Haifa for the British officials of the Palestine Railways. This token was given to the bartender for a drink. These were usually issued to the members around the 15th of the month (when they were broke) and their account was debited accordingly. When the officials received their salaries they squared their account.

Metal: Brass 29mm

Obverse: The initials "PR" for Palestine Railway, incuse serial number "L 6997".

Reverse: The initials "PR" with a design on the bottom of a rectangle surrounded by numerous rectangles. Crude.

The token is made of brass, poorly struck and has few types. I recognised four types which differ in few details. If we define 'Type A' as the original, then:

'Type B' carry a different form of the flower on the obverse.

'Type C' is like Type B, but the serial number is given on a straight line.

'Type D' has a different form of the stylized initials.

More types may exist.

There is no denomination on the token; it probably has a value of one Egyptian Piastre.

Type A is a Brass alloy disc of 29mm. diameter, plain edge, wight 7.8 gm., with a hole in the centre. Obverse: Around the hole appears, on the top, stylised Initials P R (for Palestine Railway.) On both sides of the hole, a large dot. At the bottom, a flatted flower with squared-cornered petals.

Reverse: On top of the hole, the same stylized initials P R; on both sides of the hole, again two large dots. At the bottom, in an arc, a serial number, starting with a letter and continuing with digits.

Type B. Brass alloy, 29mm. dia., 7.8 gm. weight, plain edge. A hole in the centre.

Obverse: Around the hole: stylised initials P R On both sides of the hole, a large dot. At the bottom, a flower with squared-cornered petals.

OTHER MIDDLE EAST RAILWAYS.

(A). EGYPT.

(a). DISASTER.

On the night Tuesday/Wednesday 19th./20th. February 20902 a night train from Cairo to Luxor apparently caught fire when a gas cylinder in an overfilled compartment (being used for cooking ?) exploded. The driver did not notice - one wonders if anyone ever pulled a communication cord - and by the time the train stopped seven kilometres further on, seven of the coaches were in flames. Early radio reports indicated at least 200 dead - many burned beyond recognition - and at least 80 severely injured; later newspaper reports spoke of up to 400 dead. Many passengers had attempted in desperation to jump from the moving train to escape the flames and heat.

(b). TRAMWAY NEWS.

In "Strassenbahn Magazin" 1/02 is a three-page illustrated article by Wolfgang Kaiser on the current situation of the tramways in Egypt. "The four existing systems have managed in recent years to make some isolated improvements, but there is still no clear plan for the future."

"Following a visit to the Egyptian tramway systems in the first half of 2001, and the acquisition of further information, the reports that appeared in Strassenbahn Magazin 6/1996 and 9/2000 can be expanded.

Alexandria.

In Alexandria there are currently 119 vehicles available for service, allocated to the two depots of Kharmous and Moharren Bey. Of the former 99 Duwag trams from Copenhagen (Nos. 801-840 842-899) the first ten examples have now been withdrawn (808, 815, 818, 823, 842, 846, 866, 889, 890, 896.) Of these, 815 and 890 have been purchased by the Danish tramway museum in Skjoldenaesholm.

Further there are the series of four-axle double-railcar sets built at the beginning of the 1980's. These include the fifteen units built by Ganz of Budapest, sets 1201+1202 to 1229+1230, and the fifteen trains 101+102 to 129+130 built by Kinki in Japan. Here it is possible to correct a widely-held but erroneous belief that there are only ten such Kinki sets. In fact there are four sets painted in different livery (red band at window level, pantographs) for the Overland line, of which at the time of writing three were in regular use on Line 25 from Ras el-Tin to Place Zaghoul and from there further over the suburban line to Sidi Gaber (a busy railway station) or Mustafa Kamel (the depot of the local line.) Some journeys continue onto the urban network to the stub track end-point at Manshiya near the former junction for the central Orabi Square, which formerly served as a turning point for some suburban services.

Apparently this service is to be expanded, for at the depot in Muharram Bey four further Kinki sets could be seen being rebuilt. The rebuilt trains are also renumbered, whereby a 1 is placed before the existing number. The first eight trains were selected for the rebuilding, and they now carry the numbers 1101+1102 to 1115+116. The remaining seven sets are intended for service on Line 15 which operates between Ras-el-Tin and Place Zaghoul (Ramleh Station).

Low Floor for Alexandria?

Since the current law is that second-hand vehicles may not be purchased, the ordering of 15 low-floor vehicles is being considered; However, at the time of writing no tender had been issued.

The Suburban Railway has some interesting Works vehicles that are kept at the Mustafa Kamel depot. There is a four-axle Tower wagon 601 (formerly a passenger tram from the series 501-527, built by Oerlikon in 1925), the new two-axle Tower wagon 630 (built 1998) and the apparently no longer used four-axle tower trailer car 605. No. 5601 was observed several times with an unnumbered four-axle works open wagon out on the line.

Cairo. Line 9 is not in operation.

There is less positive news to present from the remaining system in Cairo. The Line 9, first built in the 1970's and running largely on separate trackbed in the middle of major roads from the Depot Port Said to Shoubra-el-Kheima was not in operation (temporarily or permanently ?), whilst the last remaining Line 12 (Port Said - El Matariya) now also serves the remainder of the former and already closed section of Line 8 between Port Said and Shoubra (Esko). The depot there is however no longer connected to the tracks and the excess trams are packed into the hopelessly-overfilled Depot Port Said.

For shunting within the workshops at the depot 4-wheel works car 180 of Belgian origin is available It comes from a series of 33 tramcars (101-123, 179-186, 201, 202) which with similar trailers 601-631, 701 and 702 were delivered to Cairo in 1925/6. Unfortunately there is a total ban on photography within the depot and not even a conversation with the Director of the CTA Transport Authority was successful in this respect. A similar such vehicle is apparently to be seen in the Film studio "6 October City" 20 km. from Cairo, where there is also an open-air museum.

Heliopolis Moves Backward.

The tramway network of Heliopolis has also shrunk a little further, since the sections of Lines 33 and 35 in the Cairo suburb of Darassa have been abandoned in favour of road-widening. The lines now end in a stump by the depot at Abassia. As well as the Red, Yellow and Green Metro lines which start near the Cairo Main station, there is now also a Blue line which diverges at Heliopolis and reaches the termini of routes 36 and 32 at Sahri Suez and Madinst Nasr respectively.

The operations in Helwan are also unattractive, albeit in the afternoons a total of eight two-car trains were observed on the three remaining lines, each of them around 10km. long.

Helwan: Waiting in the Desert.

In the afternoons one must expect over an hour's wait in the satellite town of "City 15 Majo", as a result of which the locals are turning to other means of transport, notably buses, collective taxis or even private cars which pass by, and by the time the train comes hardly any passengers are still waiting. The new section to the University is almost complete over large sections, but the works appear to have been left uncompleted for quite a time."

Further Note on Alexandria Trams.

"Op de Rails" 2001-9 p. 334 has a photo of one of the trams that had been returned from Alexandria, on display for a few days in June 2001 in the Town Hall Square of Copenhagen.

(c). CONTEMPORARY

P R Token continued

Reverse: On top of the hole, the same stylised initials P R. On both sides of the hole, again two large dots. At the bottom, in an arc, a serial number, starting with a letter and continuing with digits.

As already stated, there is no date, no indication when they were brought into use or when they ceased being tender.

If anyone has any more light that could be shed on this subject, they are earnestly requested to contact Mr. Uri Ben-Rehav at P. O. Box 642, Bat Yam 59106 Israel.

TRAVEL IN EGYPT.

An article by Matthias Hille in "Fern Express" 3/2001 pp.4-8 provides the following information:

"On a Tuesday morning in March this year I get into the Cairo Metro. In spite of the early hour the coach is packed full, the air is sticky. In the Sadat Station the ride is suddenly over - everyone out ! A row of soldiers in black uniforms close off the platform. The Metro travels on further without us. Then one of the uniformed men explains to me the reason for the Control: "The first two coaches are for Women only". Aha ! In the meantime the time is passing, and in half an hour the train to Luxor should depart.... Fortunately the next Metro comes and five minutes later I get out at the Mubarak Station in the Ramses terminus.

Through a bustle of people and confusing tunnels I rush to the daylight. I had already bought my ticket the previous day - 56 Egyptian Pounds, around 31 DM (16 Euros) for the 1st. class 10-hour journey to Luxor. At Platform 8 the train is already standing. There is still time to buy something to eat, and then Express 980 departs punctually at 07.30. Slowly the train snakes its way through the back alleys of this city of millions, the track often functioning as a rubbish tip for the local inhabitants. Many locals also use the tracks as a footpth - it is therefore no wonder that the train is so slow.

Then we cross the Nile on a large steel girder bridge at the north side of the city, and curve towards the south. A short while later the train halts in Gizeh. Crowds storm in, the 1st. Class however remains only half full. Then we move on. Now we move quicker, the last houses of the conurbation of Cairo disappear behind us, and from now on fields and palm trees distinguish the landscape. Wheat, sugar canes and banana plantations are seen frequently, also fields with Clover, which is used as animal feed. Whilst I enjoy the view a friendly gentleman offers tea, coffee and even a small breakfast from the Minibar. I take a tea, which is here - as in several Arab countries - almost a national drink.

It is already 12.30 when the train pulls into Asyut. It is only in certain major stations that the name stands in Latin letters as well as the normal Arabic ones. Similarly in the modern computer-printed tickets the new Arabic numbers are deliberately used. But with a bit of practice one can, even as a European, make out the symbols. Outside, there are more fields and small villages. A broad irrigation canal parallels the railway line So far there has been nothing to see of the Nile.

At 15.00 the train halts at Nag Hammadi..... shortly after this station we cross the big Nile bridge. From here the line follows the eastern bank. Often one sees still the massive wooden telegraph poles with up to 15 crossbars; however, in most cases the wires have been consolidated into one thick cable. The train stops again in Qena and Qus, and then at 17.30 arrives punctually in Luxor. .....

.... Three days later I travel further to Aswan. The Express requires exactly three hours for the 208 kilometres. Beyond Kom Ombo the line is directly on the Nile bank, and one has a good view of the river. In many places the line has been routed over new deviations as a part of the double-tracking programme - in such cases the remains of the original line have just been left behind.... If all the scrap along the roads and railways in Egypt were to be collected, there would be enough work for a steelworks for a year at least. Aswan is almost the end of the Nile railway route - only three trains per day in each direction traverse the section further to the southern terminus of Sad El Ali below the massive Dam. In the 1970's an extension was planned to Wadi Halfa in Sudan, but this project was never realised. However, on 8th. March a goods train laden with new sleepers left Aswan Station heading south. Whether a new section was being built or just an existing one being repaired, I could not ascertain.

.... Today the routes of the Egypian National Railway total some 4500km. The most popular amongst tourists is the Nile line already described, from Caro to Luxor and Aswan. For these 879 kilometres the Day Express requires some 3½ hours, the sleeping car train an hour less. Tickets for all express trains can be bought at the counter in the stations of Alexandria, Cairo, Luxor and Aswan, where the actual travel times and prices are written in English. Although prices have risen appreciably in recent years, train travel remains an economical pleasure. A single ticket Cairo - Alexandria costs between 23 and 30 Egyptian Pounds 1st. Class depending on train type (i.e 13-17 DM.) The journey from Cairo to Aswan costs (1st. class) with the Express 980 Cairo dep. 07.30, Aswan arr. 20.50, 69 L.E. - ca. 38 DM (20 Euros). The Sleeping Train is a little dearer, a single ticket costing 93 US dollars. Tickets for the local trains are only available in the train. Non-air-conditioned coaches are cheaper than air-conditioned ones. The 3rd. class coaches should better be left for the locals, and in any case these are mostly overfilled.

(d) ENR MOTIVE POWER.

The motive power of ENR comprises mainly Diesel-Electric locomotives; they all come from Germany or the USA. Whereas the Class AA22T, delivered by Henschel of Kassel in the 1980's, mainly haul express passsenger and freight trains, the smaller GM-EMD G22W locos haul local passenger trains or perform shunting duties. Three trains each way travelling between Cairo and Alexandria are formed of Gas Turbine sets. These so-called TurboTrains provide the fastest and most comfortable services on this line. Their top speed is 140 km/h.

The newest locos are from ADtranz in Kassel - locos of Class DE 2550. In total 69 were built between 1996 and 1998 for the ENR. 45 machines received only a single end driving cab and central automatic couplings; their top speed is 80 km/h. They were intended originally for use double-heading the heavy freights between the phosphate mine at Abu Tartour and Safaga on the Red Sea. 23 further locos of the same type were built with two cabs and for a top speed of 140 km/h. They mainly haul the prestigious expresses between Cairo and Aswan. Both variants are ftted with the well-proven General Motors type GM 12-645 E3 engine; they were built in kit form. with modified Flexifloat bogies enabling a high tractive effort. The comfortable sleeping cars for the night train operated by CIWL between Cairo and Aswan were built 1980/1 by MBB in Donauworth. Acceptable comfort is also offered by the silver passenger coaches constructed from stainless steel. All other coaches, especially those of the 3rd. Class, are very spartan in their interiors and often rather dirty. Goods traffic in Egypt is only of relatively small proportions. Apart from Phosphates the main transport is sugar cane. Most of the goods wagons have central automatic couplings. One curiosity is the primitive four-wheeled bolster wagons used for sugar cane transport These have normal buffers and have neither air brakes nor any other form of through air piping.

(e)THE LINE TO PORT SAID.

Whoever has not had enough of rail travel in Egypt should take a day excursion from Cairo to Port Said; from Cairo, the line diverges at Benha from the main line to Alexandria; it is single track to Ismailia, and soon on the right-hand side the silhouette of the big swing bridge at El Ferdan can be made out.

The line then continues within sight of the Suez Canal and one has a good view of the ocean-going ships that are passed. Near El Kantara a great road bridge with two high pylons is almost complete. The times of the ferry crossing will presumably be over - for road transport - by this

autumn. Perhaps one day the rail link to the Sinai peninsula over the aforementioned swing bridge will be restored. Trackworks in May 2001 on the junction to the swing bridge allow a certain amount of hope.

(f)THE NATIONAL RAILWAY MUSEUM IN CAIRO.

Railway enthusiasts must certainly make a visit to the Railway Museum at the Ramses station in Cairo. It was opened in conjunction with the International railway Conference of 15th. January 1933 and is the only one of its type in North Africa. As well as an original Steam Railcar of 1862 and the steam loco No. 1 of 1852 there are models of locomotives and coaches from different epochs, and also of the Nile and Suez Canal bridges, to be seen. Many photographs and an unfortunately non-operational layout are also part of the display. The museum is open daily, apart from Mondays, from 08.00 -13.00. Entry costs 5 L.E. (ca. 1.40 Euro.)

(g)TRAVEL & PHOTO TIPS.

The best time for travelling is between November and April; the rest of the year can be very hot, especially in Upper Egypt. Photography in stations is mostly unproblematical, also walking across the tracks is tolerated.... A friendly question often opens the doors to loco cabs and signalboxes. The Egyptian railwaymen are always pleased to be offered a railway postcard....

Apart from the Cairo - Alexandria line the British-type semaphore signals are still to be seen everywhere.

Photos along the Nile route are hard to get. The best, albeit not cheap way is to take a taxi from Kom Ombo to Aswan. Here one has the best lighting conditions in the mornings. Photography along the Suez Canal and also the railway swing bridge at El Ferdan is unfortunately prohibited (a quick shot from an open train window is however possible.)....."

h). THE FERDAN BRIDGE.

By coincidence (see above) 'Railway Gazette International' of Jan. 2002, p.7 reports:

SINAI LINK RESTORED.

On Nov. 14th. [2001] Egyptian president Hosni Mubarak formally opened the 640m. El-Ferdan swing bridge across the Suez Canal, 20km. north of Ismailia. The bridge reinstates the rail link into Sinai which has been broken since the third bridge was destroyed during the 1967 war with Israel.

Built over five years at a cost of £E 1.5 Billion, the new stucture carries a single-track railway line with road lanes on each side. The world's longest swing bridge has been built by a consortium comprising Krupp Stahlbau of Germany, Besix of Belgium and Orascom of Egypt. Technical assistance to Egyptian National Railways was provided by Halcrow. The 340m span swivels to allow large ships to pass through the canal.

The Egyptian government hopes that reopening of the 225km Sinai railway from Ismailia to Rafah will integrate the peninsula fully into the national economic, social and political arena. East of the bridge, the line runs north for 50 km. to the Mediterranean coast, and then turns east to Rafah on the Israeli border. Stations have been built at Al-Qantara East, Guilbana, Balooza, Rumanna, Rab'a, Nakhila, Bi'r Al-Abd, Al-Tilol, Al-Rawda, Al-Midan, Al-Arish, Al-Raysa, Al-Sheikh Zwaid and Rafah.

(i). EGYPTIAN POSTCARDS.

From "Picture Postcard Monthly" of September 1999, p.25: An article on "Raphael Tuck in Egypt" by Liz McKendrick-Warden.

"Raphael Tuck and Sons were unsurpassed for the sheer range and quality of the postcards they produced during the Golden Age and one of their most popular series was the "Wide Wide World Oilettes", which can be found picturing scenes from various parts of the world....

"Wide Wide World" was actually the title of a children's book written by the American novelist Susan Bogart Warner. It was published in 1850 in two volumes and became so popular in Britain, as well as America, that 13 editions were printed in the first two years, and its title soon became a catchword.

..... Cards in these series are still relatively easy to pick up and cost between one an three Pounds depending on their subject..... "Picturesque Egypt" was used as a title for at least 11 separate series and of these at least four are in the "Wide Wide World" series. It is not clear if these were all original sets or if some were reprints.

By the middle of the last century, the Middle East was considered not only to be the land of the Bible but also an interesting and exotic location for the more intrepid traveller. It was more easily accessible than the mysterious lands to the east of Suez and by the 1830's Cairo had become an important stage on the Grand Tour. So popular was it that in 1851 a contract for the overland route between Cairo and Suez was given to Robert Stephenson to build one of the first railway lines in the world and certainly the first in Africa. The line opened three years later....."

Thomas J. Cook, the man who single-handedly revolutionised travel in , had paid his first visit to Cairo in 1860 and no that Britain had taken charge he was quick to see the possibilities that this city had to offer his business. Within a month, he had organised a tour to Egypt for 32 ladies and gentlemen, hiring two steamers to take them up the Nile as far as Wadi Halfa. Cook set up his office in the grounds of the Shepherd's Hotel in the centre of Cairo and in 1869, the year that saw the opening of the Suez Canal, he offered a tour that included actually being part of the grand steamboat procession through the canal to Suez...."

The rest of the article concerns the development of tourism, but it is illustrated with, amongst others, a reproduction of "WWW Famous Expresses" series no. 9329 showing one of the expresses of the Egyptian State Railways, and headed by a 4-4-0 with clerestory-roofed coaches. "According to the card, it is one of the handsomest trains in daily use, with a lavish interior of white and gold."

(j). OTHER PUBLISHED PHOTOS.

Pictures of Eyptian Locos are published in 'Locomotives International' No 59 - a copy kindly sent by Marc Stegemann includes one of a Baldwin 2-6-0 (probably no. 388) as built in 1898 on a freight; Henschel-built 4-4-0 no. 713; on p. 23 one of the 2-2-2-2 engines built by North British with Sentinel engine units - nos 276-279. on p.24 a reproduction of a postcard of a train arriving at Suez from Port Tewfik behind a saddle tank loco, Kitson-built 2-2-2 ESR No.19 of 1889, and ESR 694, an outside-framed inside-cylinder 4-4-0.

(B.) SAUDI ARABIA.

In 'C.R.J.' No. 128 Winter 2002) p.308 is a brief report: "A reader reports that, as photography has to be undertaken with discretion, he can provide few details of any equipment, other than that the locos are GM-built and that the coaches, despite being of Budd appearance, were actually built in France. In April 201 there were five trains each way between Riyadh and Dammam.Patronage is reasonable, as the fare is half that of air travel and the new Dammam airport is a long way from the town, so door-to-door times for the trains rival those for flying. Track generally comprises 53kg./m rail, and a concrete sleeper installation programme is under way, there being a concrete sleeper factory on the outskirts of Hofuf. Freight traffic is light, with no more than two or three trains per day, and takes the southern route from

Riyadh via Al Kharj, which joins the more direct northern, passenger route at Hofuf. There appear to be four classes of GM diesel loco, with the number series of 10xx, 35xx etc. corresponding to the nominal horsepower."

(See Hughes for more details of motive power. Ed.)

(C). TURKEY.

The following three items are from C.R.J. No.28, p. 38f.

(a). ISTANBUL MUSEUM EXTENSION.

"The Rahmi M. Koc Sanayi Muzesi, in Istanbul, opened an extension in June 2001. Exhibits include Prussian G10 0-10-0 55022, still unrestored, and the state carriage of Sultan Abdul Aziz, plus a carrriage from the 'Tünel' line in Istanbul. This steeply-graded line links Karaköy at the bottom with Tünel in Galatasaray at the top. It was formerly operated by two pairs of four-wheel cars, as a funicular powered by a stationary steam engine. It is one of these cars which is now in the museum, together with the two-cylinder steam engine and winding gear, The line is now operated by two bogie carriages drawing power from an overhead line, though it has also been reported as still a funicular. Further information on the current method of operation would be welcome."

(Ed notes - It is apparently still a funicular - the overhead wire would be for communication rather than power.)

(b). CAMLIK MUSEUM.

"Further Information: Rotary snowplough No. 4 is reported to be Henschel 11344/1912 and 138 is Henschel 21700 according to a works list for that builder. A boiler plate on 44041 reads Schwartzkopff 10395/1935, but this is the builder's number of 2-10-2 No. 57017, so presumably some plate-swapping has occurred."

(c). BAGNALL 0-4-0ST's.

"The 60cm gauge 0-4-0T preserved at Zonguldak Docks which is now painted black and displayed on a roundabout is not No. 4 (Bagnall 2863/1948); that loco is on display in green livery, now rusting somewhat, outside the offices of Turkiye Taskomuru Kurumu Genel Mudürlüügü (head office of the national coalmining ministry) in Zonguldak. Sister loco no. 1 "Siram" (Bagnall 2860/1948) is still at Uzulmez. The loco on the roundabout is possibly Bagnall 2861/1948 from Kuzlu. Searching the motion for builder's numbers could be awkward in such a public place!"

(d). TCDD COACHES.

The Editor has noted a great paucity of information on the rolling stock used in Turkey - though quite clearly most of it seems to follow German or Central European norms and designs. In 'Eisenbahn Kurier' 1/93 is a brief article (p.26) on a special train that operated in October 1992 using a typical formation for mixed trains - rather than the more usual special sets with sleeping and dining cars often used on steam specials, which provided more comfort but less authenticity for photography. Photos show former USATC 2-8-0 46.226 (Lima) and 2-10-0 56.513 (built by Borsig in 1943 as 52.366) hauling the train which comprised two bogie coaches painted a dark blue and several wagons and vans; the coaches are described as having been built in Breslau in 1932 and 1935.

Does any reader have more information as to whether these were built specifically for Turkey or sold there second-hand ?

(e). THE TAURUS OBSTACLES.

Also adapted from EK 1/93: Construction of the 'Bagdadbahn' was difficult, as has been well documented here and in other books. The greatest obstacles between Konya and Bagdad comprised the crossings of the Cilician high plateau near Adana and the Anatolian high plateau of Central Turkey. The Saxon engineer Heinrich August Meissner (1862-1940) therefore chose the route from Adana (28.66m over sea level) via Yenice and Pozanti to Ulukisla (1,427.22m over sea level) - so that within these 132.3 km. a height difference of 1,398.56m. (almost one and a half kilometres!) had to be attained. For this reason the Taurus line counts as one of the most difficult mountain railways of the world and is truly a technical masterpiece.

South of Belemedik the so-called "Great Gorge" begins, a ravine with walls almost 1 km. high, whereas the river Cakit flows stormily in the narrow valley. The line traverses this area with the help of many viaducts and 17 tunnels which, with a combined length of 8,390m., comprise almost two-thirds of the track length in this gorge section. Along the "Taurus Railway" there are a total of 37 tunnels with a combined length of 14,495m. and the gradients can be as steep as 2.5 % . The TCDD used the powerful 2-10-0's of the German 44-class, which the SNCF sold to Turkey in 1955 and which became here the 56.7 class, but because of the difficulties of the line and the many tunnels it was mainly dieselised from the middle of the 1970's.

Construction began in 1903 and was still under way in 1914 when the First World War broke out - having attained by this time a length of 963km. But the most difficult sections across the Taurus mountains were not yet complete. In August 1917 a 60cm. gauge light railway was built between Belemedik and Kelebek, which in part traversed the incomplete tunnel being built for the standard gauge. Fireless locos were employed on this so-called "Decauville" line, and the standard gauge line was only ready by October 1918.

Fortunately - and amazingly - the transport of a squadron of Bavarian Air Force pilots to Palestine by train was well-documented and a range of photographs (see below) in the Bavarian State Archives in Munchen shows the aeroplanes and other equipment being transshipped from standard to narrow gauge wagons for this

frustrating section of line.

(f). HAYDARPASA STATION.

Uri Ben Rehav visited Istanbul in 2000 and transcribed a plaque on the wall of Haydarpasa Station there next to the main entrance. The text, in a form of English, is reproduced here as faithfully as possible!

"History of Haydarpasa Station Building. Haydarpasa is the first station (gate) of Istanbul opening to Anatolia and Middle-East. The construction of Haydarpasa station had been begun during the Ottoman Empire. In the period of Sultan Abdulhamid II (1842-1918) on May 30 1906 and been completed on August 19 1908 then been put into service.

One of the general of Sultan Selimii name was Haydarpasa had spend a big struggle during the construction of Selimiye military headquarters, for that reason, his name had been given to this district where this station located. Afterwards this building had been denominated by this name.

The construction of building had been realized by one of the German Corporation denominated as "Anatolian-Baghdad Corporation".

By the attempt of Mr. Huknen who was the general manager of this corporation, a breakwater had been constructed in front of the station besides some establishments and siols which can be used for loading and unloading of the commodities existed in the cars (wagons) that will come from and go to Anatolia.

During the studies of architectural project of building, various studies had been carried out, but the project prepared by the two architects Mr. Otto RITTER and Helmuth CONU had been implemented (realised). During the construction,some modifications and simplifications had been made on the project then that project had been applied (realised) with present situation.

During construction of building some Italian skillful stonecutters had laboured (worked) together with the German skillful workers.

At the beginning, the station on building had been established (constructed) on the area for 25425 sq. meters, then together with the present closed sections (divisions) had been expanded (spreaded) to area 3836 sq. meters.

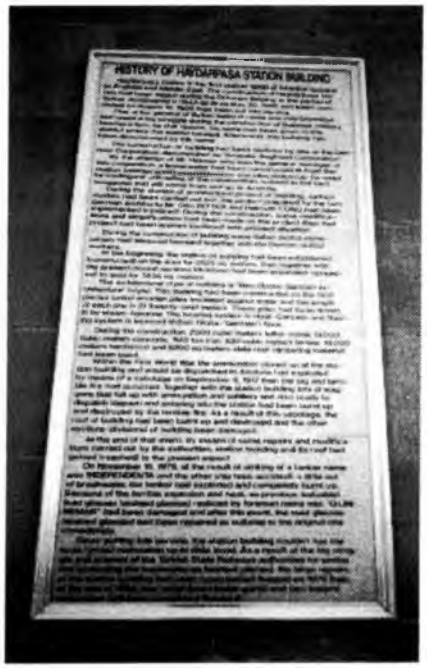
The architectural style of building is "Neo Classic German Architecture" (style). This building had been constructed on the 1100 pieces (units) wooden piles insulated against water and the length of each one is 21 (twenty one) meters. These piles had been driven in by steam hammer. The bearing system is steel-carcass and flooring system is beamed Voltaic (Volta - "German") floor.

During the construction, 2500 cubic meters lefke-stone, 13000 cubic meters concrete, 1140 ton iron 520 cubic meters timber, 19000 meters hard wood and 6200 sq. meters slate roof veneering material had been used.

Within the First World War, the ammunition stored up at the station building and would be dispatched to Anatolia had exploded by means of a sabotage on September 6, 1917 then the big and terrible fire had occured. Together with the station building lots of wagons that full up with ammunition and soldiers and also ready to dispatch (depart) and entering into the station had been burnt up and destroyed by the terrible fire. As a result of this sabotage, the roof of the building had been burnt up and destroyed and the other sections (divisions) of building been damaged.

At the end of that event, by means of some repairs and modifications carried out by the authorities, station building and its roof had gained (reached) to the present aspect.

On November 15, 1979, at the result of striking of a tanker name was



INDEPENTA and the other ship (sea accident) a little out of breakwater, the tanker had exploded and completely burnt up. Because of the terrible explosion and heat, the precious (valuable) lead glasses (stained glasses) realized by foreman name was "O. LINNEMAN" had been damaged and after this event, the lead glasses (stained glasses) had been repaired as suitable to the original one immediately.

Since putting into service, the station building couldnt has the large (gross) restoration up to date (now). As a result of the big struggle and attempt of the Turkish State Railways authorities for saving and protecting the masterpieces (ancient pieces) the large repairs of the station building had been commenced (begun) on 1976 then at the end of 1985, four outer faces (outer parts) and two towers restoration had been completed (finished)."

Well, clearly someone had a dictionary to hand !

(g). Istanbul Trams.

From 'Op de Rails' 2001-9, p.334. (Translated from Dutch. Ed.)

"The Istanbul transport system has ordered 55 low-floor trams from Bombardier for use on the urban tram network. They will be a new variant of the low floor trams now in use in Croydon, Cologne and Stockholm. The Bombardier works in Vienna will build the bodies, whilst the electrical installations will come from Vasteras in Sweden. These are the same factories that were responsible for the Rapid Transit stock for Istanbul in the 1980's. Deliveries should begin in the second half of 2002.

At the moment vehicles from the "Sneltram" (Fast Tram = Rapid Transit) have been used on the urban tramlines since 1992. This was always intended as a temporary solution, since high platforms had to be built on the streets for these vehicles For a long time the rumour was that Turkish factories were going to build the new trams, but apart from a single body for a Rapid Transit car nothing has materialised."

D. LIBYA.

(a). OLD PHOTO.

A photograph in 'Locomotives International' No. 59 p.20 shows a train filled with Italian Alpini Corps soldiers in a special train formed of four-wheeled open wagons on the Tripoli - el Ghiran - el-Azizia line which opened in January/February 1913. The photo is noted as having come originally from the 'Revistra Mensile del Touring' of April 1913.

(b). Rick Tourret notes - on Harak. 54:10:

"The World War Two situation was covered in fair detail in Chapter 22 of my book 'Allied Military Locomotives of the Second World War', so I will not repeat all this information. However, I cannot make much sense out of Uwe Pietruck's notes. So far as WW2 goes, NO Maffei locomotives were reported there. Locos R441.101 and R441.106 were Reggiane 0-4-4-0 Mallet tank locos, which became WD 70639/40. These two locos, as well as R441.201 and R441.204, which became

WD 70641/2, were sent to the Benghazi, Barce and Soluch Railway from the Ferrovie Eritree on January/February 1945 by the WD.

WD 70637/8 were Brown-Boveri Nos. 4066 & 4068 built 1935, formerly A11 & A12, and were 0-4-0DE's used on the Tripolitanian Railway. Note WD 70637 and 70638 were NOT R441.101/6.

I have a copy of "Railways of Northern Africa" by John R. Day published by Arthur Barker in 1964; it may be helpful if I mention that the first three lines of text on p. 138 should be relocated to the top of page 140. Surprisingly, this error is not immediately obvious."

c). An article with maps appears in 'Fern Express' 3/2001 pp.12f., by Thomas Meyer-Eppler.

(E). HEDJAZ.

(a). ANOTHER FILM.

The German Railway Museum in Nürnberg was advertising in various magazines "Dampf in Orient", at an introductory price of • 14.90, then later • 19.90. It can be ordered via (+49)-911-219-2424, fax. 0911-214-212, or <dbnostalgie@dbmuseum.de>, and lasts 45 minutes. See below for Review.

(b). MORE RAILTOURS.

Intra Express (Hobby & Studienreise GmbH) of Burgherrenstr. 2, D-12101 Berlin, tel. 030-785-3391, are advertising another railtour to Jordan and Syria from 6th. to 15th. October 2002. Price • 2385 for flights and Half-Pension. Contact them for further details - also on <intraex@t-online.de>

Enthusiast Holidays of 146, Forest Hill Road, London SE23 3QR, tel. 020 8699 3654, <info@enthusiasthols.com> are also advertising a tour in October, led once more by Hugh Ballantyne.

(c). HARTMANN 2-8-2's IN INDONESIA.

Marc Stegeman has sent me a copy of two pages, 88/89, of "Lokomotip UAP", ISBN 9061206812, with captions in English, German and Dutch.

One picture shows "Hartmann 2-8-2 D51 03 brews up in pouring rain at Tjepu in 1971", the other "Built for the Hedjaz railway in the Middle East, little alteration was needed to change these Hartmann Mikados from 1050 gauge to 1067 mm. D51 02 is seen at Bodjonegro in 1970, turning on the 'balloon' track. By the following year, most of the class had migrated to Tjepu."

These were locos originally intended for the Hedjaz Railway and diverted after World War I to Indonesia - identical with those still in use in Syria.

d). REVIEW: HEDJAZ VIDEOS.

These two videos actually relate to the same Hedjaz Tour, described by Mathias Koch and presented in translation in issue 54:11, so it makes sense to review them together. They were referred to in issue 55:7 (A) (iii). For the sake of non-German speakers a fairly extensive description will be given.

First - "Dampf in Orient: Auf den Spuren von Bagdad- und Hedjazbahnen" which is referred to in this issue, is produced by the Deutsche Bahn Musuem in Nürnberg, costs Euro 19.90, lasts 45 minutes. The journey follows the travels of a group of enthusiasts - camera-laden - from Istanbul to Amman, in 2000. This DB film covers a much wider perspective and is clearly made for a different audience - not necessarily the knowledgeable enthusiast but the interested member of the public. It is made to TV broadcast standards, with several "talking head" interviews, animated maps showing the line followed, fade-ins and some very well-done fading from colour to black-and-white, followed by a seölction of "still" shots of the construction period or composites with portraits overlaid over landscapes.

Opening sequences show Sirkeci station interior and exterior, the Krauss 0-4-0T 380/1874 plinthed there, the "Orient Express" in the past and the CIWL Perapalace Hotel, the journey down to the ferry quay, the exterior of Haydarpasa, "opened in 1909". The commentary mentions the involvement of Deutsche Bank and Philip Holzmann, with conteomporary scenes. A map shows the route Istanbul - Karabük - Cankiri - Kayseri - Adana - Aleppo, but the journey starts at Karabük with a freight train of (mainly) empty coal wagons hauled by a "Skyliner" past the steelworks - two vans at the end provide for the participants. The train is shown passing Eskipazar station, at Ismet a DE22 crosses with a freight, there is a brief interview with the 65-year-old driver Erol Demir, the train continues through shots of landscape and agriculture, there are runpasts entering and bursting form a tunnel, shots of old telegraph poles... By Cankiri (61,000 inhabitants according to the commentary) there are mountains and appropriate scenes before Irmak is reached - here the participants are shown loading their plastic garden chairs into a bus for transfer to Kayseri !

The next day sees a 07.30 start, once more open wagons, a different loco - 56009 - oil fired, hauls through the Taurus, pauses a couple of times for watering by the Fire Brigade, climbs 200m in 15 km. to Yesilhisar stn., shots of the 2500m high muntains, bridges, but no tunnel until Nigde. By Bereket station there are lengthening shadows. Still shots show personalities connected withthe construction, and an advert for jobs on the Bagdadbahn, and "Kaiserliche Ottomanische Anleihe" for the Bagdadbahn - a share certificate. Manfred Pohl, author of a ("the") book on the topic, describes how the line could be classed as a financial failure but a political and economic-development success - Krupp rails, Borsig locos, irrigation works on the Konya Plain, cotton plantations in German hands, etc.

Adana is described as Turkey's fourth largest city, with temperatures of over 20deg. even in October. From here the group goes by bus to Aleppo - there are scenes of the town, the 12-km.- long Souk, the 11th.-Century citadel, the textiles and soap industries. Then we switch to the CFS station, Co-Co diesel DE2800 404 appears on East-German-built coaches including First "Ap 51 97 19-69 791-3", the whole RIV-style marking appearing also in Arabic. There is an interview with the Station Master, K. Jneid, about a loco made from flowers for the annual flower festval. Then we are suddenly at Hama, two hours south, the twelve water wheels grind round, then at Damascus - more city scenes of souk, (roofed in 1873, the holes date from the French/Druse conflict of 1925), the mosque, grave of Sultan Saladin, site of the head of John the Baptist... a few minutes before we return to actual railway shots with early stills and an interview with Dieter Noll, author of "Hedschasbahn", about Meissner's work from 1902-8 and the 96 stations.

The scene moves to Kanawat Station - the loco outside, the ticket hall, pictures of Assad - and here commences a confusing and slightly irritating sequence, only clarified by the Eisenbahn Kurier video which makes clear that these scenes were shot over two days and with different stock. Continuity becomes a problem as SLM 985/1896 worksplate becomes a 2-8-0 on neat brown coaches forging through the streets, then suddenly the group are in four-wheelers instead; There are good shots inside Cadem workshops and work on making leaf springs, the loco graveyard, then a 2-6-0T and 0-6-2T are double-heading two coaches and four vans and a bogie flat under a motorway viaduct in the gorge, bizarrely we see the camera lens being wiped (why was this not cut out ?) then water is taken at 'Zebadani', there are cab scenes, the "regular" excursion train pounds past with Borsig 2-8-0 160 - and then there is delay until it transpires that this train had derailed at 'Serghaya'. (Reference to Harak. 54 will show the de-

railment was actually at Zebadani - the voice-over commentary is incorrect here.) The shawarma seller does good business and Aziz el Kassem, the 71-year old driver who trained 40 years ago on the DB, is interviewed, before he reverses the loco back onto the track - unfortunately the crowd swarms in front of the camera at the 'moment of truth'.

"Next day" they go to Dera'a, the commentary states 262 but it is actually a 2-8-0 hauling six coaches past sheep and through desert landscape - 7 hours for the 110 km., presumably including these runpasts. The following day sees Hartmann 262 indeed. nicely painted and clean, on a three-coach train through the Yarmuk gorge and the border territory - nice shots. There are stills of Haifa harbour and then of Dera'a station, a market being cleared off the tracks as a train approaches(!) - a Jordanian Jung 2-8-2 pulls in with some brown/beige coaches, the Hartmann returns chimney-first from the Yarmuk, Jung 2-6-0T+T shunts around - suddenly there are four locos in shot. Azzis is interviewed - he was born in a Hedjaz station, his father and grandfather also worked on the line, his son works here too.

Jordan - 5M inhabitants of whom 50% live in Amman, 50% of the country is desert... and now only 1% afforested. The Jung 51 hauls a demonstration freight. Amman is shown - stonemasons working on a Byzantine church, the theatre, the station. A Nippon Pacific hauls three coaches in the brown/cream(beige) livery, and the film ends with shots of the Saudi desert and the wrecked trains standing there.....

It is clear that this film seeks to show the landscape and culture through which the trains run, as much as the trains themselves (there are no lingering shots of locos, it is even hard to make out numbers) - the commentary dwells, as noted above, on statistics and trade and history, and sometimes gets railway details wrong). But this makes it a valuable film, for (for once) one gets outside the station confines. Personally I miss any shots of the Syrian standard-gauge journey or the Qatana line.

The "Eisenbahn Kurier" film (Produced by CVT Berlin, availabe from Postfach 500 111, 79027 Freiburg: Price Euro 20.40) is clearly of the same journey. It lasts 58 minutes, starts with Damascus scenes with 2-6-0T hauling three coaches through the crowded streets, and incorporates more runpasts of 2-8-0 91 on five coaches in the desert, in the Yarmuk, shows similar scenes in Cadem Works with 260 in trial steam after repairs and the yard where some locos have stood for 60 years, the loco crew of 0-6-2T 805, some double-heading the following day with a mixed train (2 coaches, 3 Vans and an Open), 91 shunting, and the rerailing of 160, Dera'a shunting and line-up, more shots of Jordanian locos on runpasts south of Amman, even a quick trip to Aqaba. There are some brilliant evening silhouette shots, the quality is to full EK standards and this is another "classic coverage" of a specific area. It helps to see the loco driver on one day in a white shirt and the next in a blue-and-yellow one - this provides the "continuity" that is missing in the Syrians hots of the DB film.

In conclusion - BOTH are good, both are recommended to those interested in seeing this line as it enters the 21st. century, the amount of direct duplication is surprisingly little and both have some good sequences to offer.

(F). IRAQ.

Thanks to Marc Stegemann for a photocopy of the Condensing locomotive tender referred to in 54; It shows Iraqi State Railways Class HG locomotive No 127 with the condensing tender, which appears to be six-wheeled. Despite problems of quality we shall try to reproduce this here.

(G). IRAN.

Iraqi State Railways class HG locomotive no. 127 with a condensing tender. Photo courtesy of Iraqi State Railways.

(a). BP RAILWAY NOTES.

Re: 54:7(c), The BP Railway in Iran, Andrew Wilson writes:

"The book "In a Persian Oilfield" of 1930 describes the Anglo-Persian Oil Company's activities.

The main railway operation was the 2' 6" gauge line from the Karun River at Dar-i-Khazinah to the oilfield at Mesjid-i-Sulaiman, but the book also mentions a rope-worked incline for access to the water pumping station serving the oilfield, and at least hints that there may have been a rail link around the rapids of the Karun River at Ahwaz.

Not mentioned in the book, the company had a 3 ft. gauge railway system in the Abadan refinery, for which a number of Baguley petrol locomotives were supplied, replaced by Fowler diesel locomotives in later years.

The 2' 6" gauge railway was originally equipped with some of the Alco steam locomotives which had been used on British military lines in Egypt anmd Palestine. See Harakevet 19, photo on page 18, which incorrectly identifies them as Turkish. Presumably the other original rolling stock on the APOC line, including Drewry railcars, came from the same source. Hughes 'Middle East Railways' has a locomotive list.

I have a recollection from somewhere that the last APOC 2' 6" gauge steam locomotives were supplied for the "Agha Jari Quarry Scheme" although I cannot locate the reference at present. Certainly Hughes has the original 2' 6" gauge line closing in 1948, when the last locomotives were almost new.

The Russian forestry company's railway was nothing to do with APOC, and nowhere near its operations. It would be interesting to hear if anyone has anything more on it. The published Orenstein & Koppel steam locomotive list shows the two eight-coupled locomotives for "Russisch-Persische Holzindustrie" but all the others are just for Russia, with no indication of eventual destination."

The book to which Andy refers is "In a Persian Oil Field" by J.W. Williamson B.Sc., published by Ernest Benn Ltd., London, 1930. (2nd. ed., revised & enlarged.) The relevant texts in full are:

p.25: "The visitor from Abadan who desires to reach "Fields" - the name given "for short" to the main oil field having Masjid-i-Sulaiman for its centre - may proceed by boat up the Shatt al Arab and then up the river Karun, which winds and twists through the desert, as far as Dar-i-Khazineh, some 170 miles by river from Abadan. At Ahwaz, about 114 miles up the river from Abadan, the navigation of the Karun is interrupted by a series of rapids and here the Anglo-Persian Oil Company has important workshops, stores and tran-

shipment equipment, for transferring, by rail and road, materials and persons above and below the rapids. From Dar-i-Khazineh a railway has been constructed to Fields, via the gorge of the Tembi River. This is used mainly for transport of materials. A metalled road for passenger traffic also connects Dar-i-Khazineh with Fields and follows a route further to the north-west, through the foothills.

There is an alternative route to Fields, The desert between Abadan and Dar-i-Khazineh is an excellent natural road for mechanical transport, although, after heavy rains in winter, it becomes impassable. The introduction of motor cars has reduced the time taken for the journey from Abadan to Fields from five days to eight hours. The river Karun is, however, with the modern steamers and barges, still the most economical means of transporting heavy materials. The Company has recently introduced transport by air.....

from p. 89: ".....shallow cutting in the mountain side, from the top at Sar-i-Gach to the bottom at Par-i-Gach. The drop is about 950 feet and the length of rail 2,158 feet, giving a gradient of nearly 1 in 2. A simple four-wheeled trolley, held by a wire cable paid out from an electrically driven winding engine at the top, takes us down, and when we return from Guar-i-Landar, will bring us up. This is what they at Fields call "The Slide", and they are, justifiably, not a little proud of it. At the bottom a waiting car, summoned from Gudar-i-Landar by telephone, takes us down the valley to the pumping station. "

from p.176. ".... through the Tembi valley, which is for long lengths a deep gorge; and the road has been blasted out of the steep sides of the gorge and crosses the river by several bridges. The Company employs, directly or throgh copntract, some 4,000 Persians who are engaged constantly in making or maintaining roads.

Beside the road from from Dar-i-Khazineh to Fields, a railway of 2½ feet gauge was constructed by the Company and opened in 1923. It follows the Tembi valley and crosses the river by numerous bridges. Along this railway from 3,000 to 4,000 tons of material per month are transported, and the distribution of materials from the rail-river head, by road and railway combined, amounts to no less than 7,000 tons per per month. Passengers are carried along the railway by means of a 'Drewry' car - a sort of open-sided, single-deck tram car, driven by a petrol motor built into the chassis.

It is true that the main function of these roads is to serve the transport needs of the Anglo-Persian Oil Company, and that, apart from the employees of the Company, there is no considerable local population, settled near the roads, to which they can be of great use. But they are generally available to all and are used to some extent by Persian non-employees. In any case they constitute a valuable addition to the material assets of the country, both actually and potentially."

b). Romanian Diesels.

We have mentioned before that the IIRR purchased ten second-hand Co-Co diesel locos from the CFR (Romanian State Railways): - "Today's Railways" No. 73 p. 17 notes that those sold to Iran were 060-DA-0447, 0704, 0708, 0842, 0949, 0977, 1135, 1205, 1209 and 1310, plus an option for ten more.

(II). ERITREAN REPORT.

Eritrea has featured before in 'Harakevet', mainly due to the way it was operated as a part of the "Middle East" theatre in World War 2 - and hence appeared in Bert Dyke's memoirs. In December 2000 a week-long railtour organised by a Belgian group traversed a part of the remaining Eritrean railway system. A Report by Hans Hufnagel appears in "Fern Express" 3/2001 p.9ff. Operations in Eritrea was suspended around 20 years ago due to damage caused by conflict in the War of Independence. In 1991, after the war ended, the government decided to restore the railway link from the harbour town of Massawa to the capital of Asmara. Fortunately, although the rails had been damaged, the tunnels and viaducts and the rest of the infrastructure remained basically intact. The line, originally begun in 75cm. gauge by the Italians, was soon altered to 95cm... because of the topographical conditions the line is exceedingly spectacular.

In a straight line Massawa and Asmara are 80 km. apart. However there is a height difference of 2340 metres. To overcome this difference required a route length of 118 km. with 89 bridges and viaducts, 445 smaller culverts and 30 tunnels.

In December 2000 the stretch from Massawa to Ghinda - about 70 km. and a height difference of 1000m - was once more operational. A further 15 km. to the village of Embatkala had been rebuilt, but not yet released for locomotive operation, though it could be traversed with lorries on rail wheels, and draisines. The railway administration hopes to restore the final 35 kilometres by the end of this year [2001] and restore operation over the entire line.

The tour was able to use several special trains in different formations, hauled by Italian locos from the Colonial time, and a short ride in an old Fiat diesel railcar, and see a Parade with five locos in steam.

The following Locos were noted:
At Asmara:
202.002 0-4-0T Breda 2469/1927.
202.004 0-4-0T Breda 2472/1927.
202.009 0-4-0T Breda 2455/1937.
202.011 0-4-0T Breda 2457/1937.
440.008 0-4-4-0T Ansaldo 1162/1915.
442.56. 0-4-4-0T Ansaldo 1366/1938.
Also a Draisine. All in good external condition, No. 202.004 operational.

At Ghinda:
202.008 0-4-0T Breda 2454/1937.
202.010 0-4-0T Breda 2456/1937.
442.54 0-4-4-0T Ansaldo 1364/1938.
442.55 0-4-4-0T Ansaldo 1365/1938.
442.59 0-4-4-0T Ansaldo 1369/1938.
Railcar 2 (Littorina).
Railcar 7. (Littorina).
Two Diesel locos.
All except Railcar 2 operational.

(I). MAGHREB.

WOMEN DRIVERS!

An item by Quintus Vosman in "OV Magazine" in Holland ("Openbare Vervoer" = "Public Transport"), 7/2/2001, p.33, notes:

"The Moroccan Railways ONCF have achieved the premiere of employing the first women engine driver in the Arab world. She is Sa'da Abad, is 35 years old and comes from Rabat. For a year and a half she has been driving trains. The modern electric locomotives, often with 12 coaches coupled on, are, she reckons, the best to ride. But her first choice is the Belgian electric units that link Rabat with Casablanca and the nearby airport. She did not find the year-long training particularly difficult; that could be because the job was not totally new to her; she had already worked for several years on the ONCF and her father, now retired, was also an engine driver. This year Sa'ada should be joined by another ten women colleagues."

Vosman notes that the ONCF has always been a modern and forward-looking operation, with electrification back in the 1920', a modern rolling stock fleet and a top speed now of 160 km./h.

56:10.

THE WORLD COMMUTER

This is the title of a book by Christopher Portway, a "traveller" more than a railway enthusiast, who over the years has managed to accomplish some quite remarkable journeys by rail. This book, published 2001 by Summersdale Travel of 46, West Street, Chichester, ISBN 1 84024 145-4. includes accounts of travels in Europe, Africa, India, Russia etc., and also some of travels in the Middle East. The only trouble is that some of the accounts are formed of 'composites' of several journeys in different years, and though the author and publisher have kindly given formal permission for excerpts to be used in Harakevet, they do not actually have a great deal more factual information to offer apart from what appears in the published text ! Part 1 appeared as 55:10.

From Ch. 2: **"By Direct Orient Express and Taurus Express to the Orient.**

....there's no name that evokes the subject better than that of the Direct Orient Express (once the Simplon Orient Express), now, alas, laid to rest with a fanfare of trumpets at the end of 1977.

Once upon a time the very name of the Direct Orient Express conjured visions of intrigue and adventure. Sadly, however, the concluding years of this train were exceedingly dull ones. Only in France was it an express at all. The expected skullduggery no longer wrapped the train in its aura of romanticism; one had to to take along a sort of 'do-it-yourself adventure kit' if anything remotely interesting was to be generated. Only once, for me, was the famous express the vehicle that carried me to an adventure of the cloak-and-dagger kind.

The train that skulked at a badly-lit platform on the Gare de Lyon that late spring evening of 1969 bore those evocative placenames: Paris - Lausanne - Milano - Venezia - Trieste - Zagreb - Beograd - Sofija - Athens - Istanbul, which was all that signified to me that this was indeed the famed express. It left, on time, at the romantic hour of ten minutes before midnight, and was scheduled to arrive 84 hours later in Istanbul.

The inaugural trip of the original Orient Express in 183 was a tremendous occasions, with many crowned heads of Europe and Asia participating, At its zenith in the early 1900s, the great train could accomplish the distance between Paris and Istanbul in 56 hours. From Paris there were two departures for Istanbul, the route already mentioned and the other via Munich. The German section took three hours longer, and since a later departure time of 03.00 from Paris was frowned upon as an inconvenient hour for such a geat exporess to leave from a great capital, a policy of an idling Swiss-Italian section until the two portions could connect in Yugoslavia was agreed upon by the Timetable Conference.

This body also had the onerous task of satisfying the various countries through which the Express passed. This took some doing since every capital along the route of such a showpiece train required it to arrive and depart at a suitable hour. Even the name 'Simplon-Orient' caused disagreement. Liked by the Bulgarians and Turks, it was eventually changed to 'Direct-Orioent' and for this the Swiss, a big force in the railway world, were responsible.

In the context of route and timetable it must be remembered that the original Orient Express ran from Paris to Vienna, to connect with the Danube ferries and newly-constructed railway lines towards Romania and the Balkans, and on to the powerful capital of the Ottoman Empire, Constantinople (now Istanbul). As its popularity grew, portions of the same train split at Vienna to serve Budapest and Bucharest. The line through the Alps was by way of the Semmering Pass but in 1906 the Simplon Tunnel was opened, so offering a more direct route to Turkey. Thus two entirely separate trains were introduced, the Turkish portion being named 'Simplon-Orient Express' and the original - boring through the Alps by way of the Arlberg Tunnel - the 'Arlberg-Orient Express'.

Italy was included in the route of the Direct Orient, as the Swiss insisted upon calling the Istanbul-bound train, in 1919 as a result of the defeat of Germany and Austria in the First World War. In the 'holier than thou' attitude taken by the Allies at the time of the Treaty of Versailles, the idea of a grand express of international repute crossing the tainted ground was repugnant, And with the opening of the Simplon Tunnel between Brig and Domodossola, the way to Italy was assured. This well pleased the Italians who were building a gigantic showpiece station at Milan and wanted a prestigious train to grace it. Beyond lay a newly-created Yugoslavia with which France was anxious to establish friendly relations, so, supported by the Swiss and the Dutch, the Direct-Orient Express was born, offering sleeping- and dining-car service right through to Istanbul and also to Athens.

Since then, in spite of another war and the subsequent division of Europe, the ramifications of the Orient Express 'complex' spread to include Prague.... though today its only surviving service is that between Paris and Budapest.

I was whizzed through France at commendable speed, but at Vallorbe and the Swiss frontier my express faltered and shrank to a commuters' special, stopping at all stations and, sometimes, in between. The rock-infested greenness of Switzerland ended with the Simplon Tunnel and we came out the other side into a world of powdery white snow....

There is no room for sentiment in the communist mentality, and though only a light sahde of pink, Yugoslavia had to debunk still further the remaining shreds of glory that clung to the Orient Express after its whistle-stop tour of Northern Italy During the long wait at (the border station of) Cezana, a number of very local coaches and even a couple of cattle trucks had been added to the train. We had sunk to the level of what the Germans would call a 'Personenzug',and had even to play second fiddle to the connection for Rijeka which left before us. ..... We plunged again into thick snow at Ljubljana. It lay, admittedly thawing, heavy upon the ground, and in spite of a switch from electric to steam traction the Yugoslav Federal State Railway deemed it necessary to ration the central heating. I sat shivering in semi-darkness until the baze of light that was Zagreb came into view..... For those of us who cared to look, dawn illuminated the most featureless section of the journey so far. Right up to Belgrade the equally featureless capital, the flooded plain offered a dismal picture of a vast sea of mud. .... At Belgrade Central ....the train gave me a circular tour of the city, an apparently necessary procedure when transferring from one platform to another. :.... Approaching the legendary Dragoman Pass the railway has to bore a way through the northern buttress of the Balkan Mountains,. The pass itself, a winding chasm in which the single track and the flooded tributary of the Nisova River become almost one, was curtained by a blizzard. At Dimitrovgrad the Blugarian customs had their pound of flesh, and by the simple expedient of turning our bags upside down were able to effect their examination of the contents.... I was still struggling to close my bag when the train slowed at the suburbs of Sofia..... for the first time in 50 hours I left the train. At first I thought I'd made a mistake and alighted at the wrong station, so small and insignificant it was. Subsequently I learned that the original main station had been destroyed in the war and nobody yet had seen fit to build a new one.

..... An impressive Russian-built diesel locomotive led us into Plovdiv and then stole away into the night as if ashamed of having soiled itself by hauling a train of such imperialistic design that brandished such capitalistic placenames... thereafter we were back to steam again.

The builders of the main line out of Bulgaria could hardly be blamed for the convulsions of history that, in the course of a few years, made Edirne Russian, Turkish, Bulgarian, Turkish again, Greek and, once more, Turkish as it is now. Hence the line passed unnecessarily twice through a few dozen miles of Greece, and with no love lost between Greeks, Bulgarians and Turks, all the immigration authorities have a go at making life a misery with long passport and baggage inspections both going in and coming out of their slices of territory. A new line has since been constructed that bypasses Greek territory, thus slightly easing the lot of the traveller.

... even in a state of semi-consciousness I had been able to tell when we were on Greek soil and not Turkish. The lullaby of the wheels had abruptly increased to a rapid tempo - like light infantry on the march - as we passed over short lengths of rail. Laid thus for easy manhandling instead of being welded and placed by track-layer, the remoter areas of Greece were the last strongholds of this old-fashioned method of railway construction..... The first hamlets marked by their white sentinel minarets speckled the countryside, each supplying a quota of villagers to welcome a train that went by three times a week. By midday we had reached the sea and, leaving the Istanbul International Airport on our left, wound our way beneath the walls of the Topkapi Palace into mainland Europe's last outpost.

.....The Turkish Railway of Europe and that of Asia are, to all intents and purposes, different rail systems. The Bosphorus ensures that the traveller ends his journey at Istanbul. He or she can then start another if so desired, but there is no such amenity as a through coach, rail-ferry or even an attempt as a time-link between the two sections of railway. From Europe your journey ends at Sirkeci station and that's that. For Asia and the East the journey starts at Haydarpasa, a ten-minute dolmus ride and half an hour by ferry. Thomas Cook's 'Overseas Timetable', at that time, warned passengers in direct transit via Istanbul to allow up to eight hours for connection between trains. This seemed to me a gross exaggeration, but what this excellent publication didn't mention was the unbelievable laxity in timing of the Asian connection to Baghdad that I intended to catch. However, I had been told that the Tairus Express, my subsequent home on wheels was invariably up to six hours late ariving at its termini of both Haydarpasa and Bagdad. However, for me on this journey time was not of the essence.

At least I reached Haydarpasa with two hours to spare before the scheduled departure time of the train. The station is an Istanbul landmark in its own right, though the giant building houses quite a small terminus. Grouped around it were a number of shops and markets, so I stocked up with fodder for the 2,500 kilometre ride ahead. Statistics showed that the mileage of the Turkish Railways totalled around five thousand miles. When compared with, say, Sweden which is equally mountainous, considerably smaller but with almost double the track mileage, it will be appreciated that the railway in Turkey is a mite thin on the ground. But what there is constitutes a considerable engineering feat (in the Taurus Mountains there are 22 tunnels within just over 30 miles), in spite of the fact that much of the network was single track and non-electrified.

..... Since then (the 1930's) the realisation of the dream has withered with the growth of air travel and the post 1939-45 war situation in the Middle East. Turkey has taken over, one by one, the lines originally built with European rather than Turkish money and, in support of her more modest dreams,. has built lines linking the Anatolian routes with the Black Sea and the Iranian frontier. The Cook's Grand Tour for elegant ladies and dashing gentlemen was discreetly dropped from the agency's brochure, and the romance of a journey from Paris to Baghdad has become as faded as that of the destination boards on the Taurus coach sides.

Even so I was scandalised by the state of the present-day Taurus Express. Seldom have I seen a filthier train. The compartments were thick with grime and soot, the windows opaque with mud, the seatless toilets an affront to humanity. To cap my disgust I had my first dispute with a Turk, who demanded the equivalent of 50 pence for lifting my small bag of his own accord on to the train. He got 20 pence and a rude Anglo-Saxon instruction. Gingerly I parked myself in the cleanest corner seat I could find, weighed up the position of various head and arm rests, and prepared to endure 30 hours of suffering.

By the time we had moved out of the station I had with me in the compartment two Syrian youths and a quiet studious-looking Turk. I successfully discouraged a threatened invasion by three companions of the Syrians with a virtual mountain of baggage. I didn't much like the look of the ones already with me, and we glared at each othe as if sparring for the first words of introduction. as the suburbs of Istanbul melted into isolated vilages and small towns.

Between Haydarpasa, Uskudar and Izmit the train made good time, outwardly giving a reasonable imitation of an international express. The thickly populated plateau followed by the Turkish naval base drew all eyes in the compartment and resulted in a general scramble to the window and the cessation of our hostility.

..... One cannot travel far in Turkey without bumping into a mountain. In spite of its twists and turns the railway line spanning the wild territory was unable to escape the inevitable, and by midday we were in the awesome grip of a million-year-old result of a volcanic convulsion. Through enormous clefts in the rock barriers we crawled, following a flooded river which had learnt the easiest route long before the railway. Hissing importantly, its pistons pounding, the big locomotive dragged its cargo at a walking pace up the severe inclines. Given the slightest encouragement it stopped at the smallest of stations to allow northbound trains to pass. There would follow a frantic competition between thirsty locomotive and soot-dappled passengers to take on water, the source being one and the same. Vendors of food disembarked at every halt to make room for others who boarded the train with replenished stocks.

Food plays an important part in a Turkish railway journey. In spite of a continuous cavalcade of vendors shouting their wares up and down the corridors, every traveller carried vast stocks of provisions. To my amazement, most of the bundles and boxes belonging to my Syrian and Trish companions contained loaves of bread, fruit, homemade cake, joints of cooked meat and various bottles of liquid refreshment. I was pressed to join the melee as Turk and Syrian pooled their resources and made swift inroads into them. As there was a restaurant car attached to the train I had purchased no more than the odd snack, so my own contribution was a minimal one, of a couple of bars of chocolate and some Bulgarian cheese. But I was solemnly warned off the restaurant car. It's dirty, they said, and I could well believe it !

Occasionally our rations were supplemented by doubtful delicacies from the vendors. These ranged from kebab, the roasting of which was carried out on little portable homemade charcoal burners placed on the coach floor, to a kind of Turkish Delight and a sweetmeat that looked like cotton wool. Bargaining was surprisingly infrequent, though my companions saw to it that in my few dealings with vendors I was not overcharged. One visitor to the compartment was a youth intent upon

imparting the word of God. I suppose I looked a likely convert, for he loosed on me an unending torrent from the Scriptures (or maybe the Koran). I nodded knowingly, not wishing to hurt the man's feelings, until my Syrian companions gleefully told him that I was unable to understand a word he was saying.

The most un-Turkish city in Turkey is its capital. True I only saw a bit of Ankara, and at night, but for a couple of hours I was able to wander in Ataturk Boulevard and Kizilay Square. It could have been Birmingham or Milan. The citadel and the Old Town in the north were hidden by the darkness, and an old woman in the baggy trousers of her country cousins drew stares as she waddled past the fashionable shops now closing for the night.

I arrived back at the station to discover that we had an uninvited guest in the compartment. He hadn't come in, I was told; he had fallen in. Drunk as the proverbial lord, my Syrian friends had propped him up in a corner seat - mine - retrieved his spectacles and pipe, and dusted him down. Promptly he rolled full-length over the seat and, finding this to his liking, settled down for the night. Indignant at what we thought might be a ruse to obtain a whole length of seat to himself, we pushed him back into the corner from whence the whole performance was repeated. How long this would have gone on had the contingencies of nature not taken a hand, it was impossible to say. Suddenly he sat up and asked for the bathroom. We said that this was not a royal train.

"Train?" he mumbled through his big drooping moustache, as if he had never heard of such a phenomenon. "What train?" We pushed him out into the corridor then drew the blinds and barricaded the door against his return. By this time Ankara was miles away. The poor devil was going to get a rude shock to go with his hangover in the morning. We never saw him again.

The morning brought a stupendous sight for us. Leaning out of the open window, bleary-eyed and risking the shower of smuts, I saw the railway making a beeline across the flat Anatolian plain staright for the enormous bulk of the Taurus Mountains. The dawn sun splashed the vivid whiteness of the peaks, dazzling the eye and reflecting upon the wisps of cloud that hung to their summits.

For the next seven hours halts were numerous, both scheduled and unscheduled.The stations were simply clearings where a double track could be laid to allow for trains to pass. Life for the inhabitants revolved around the arrival and departure of trains, the children running amok amongst the shunting wagons.

I had made the acquaintance of the locomotive crew the previous late evening at a town at which a particularly long stop had been made, the couple readily accepting my offer of beer at the station bar. Consequently I had been accorded the special privilege of being allowed to walk alongside the train for much-needed exercise when it reached a particularly steep mountainous section of track. And they were as good as their word Near the highest point of the line the driver gave me two pre-arranged blasts on the whistle thus allowing me to leave the carriage, drop to the ground, and stroll alongside the slow-moving train. Near the top of the final rise another, but longer, blast of the whistle was signal for me to rejoin my coach, an arrangement that gave pleasure to me and considerable amusement to my fellow travellers.

Great blobs of pink and white blossom softened the sombre background of wild mountain scenery, but as we climbed towards the snowline this gradually gave way to barren rock. Herds of goats and, incongruously, the odd camel, were the only living things in the desolate region, while the occasional eagle soared above. The train crept at no more than walking pace for mile after mile through ravine and chasm, the locomotive wailing continuously. At first I thought this might be a signal to me to avail myself of another trackside stroll, but thought better of it in case I was wrong and got left behind.

Upon reaching the small summit station an air of festivity infected both passengers and station staff as if reaching this point was cause for celebration. We halted here for a considerable time in spite of being already several hours behind schedule while, once the locomotive had received its fill of water, a knot of passengers including myself availed ourselves of the watering appliance for a sluice-down of our own bodies. The cold water and fresh air were great revivers and the bright sunshine mitigated the sense of exposure to the freezing temperature.

From here onwards the train became a hound unleashed. It bounded joyfully down the inclines, the locomotive hissing and snorting, pushing through a series of tunnels, filling everything with acrid smoke and emitting its banshee whistle. Being held up at signals was an excuse for the most ear-splitting crescendo of sound it has ever been my misfortune to hear, with the mountains throwing the echoes back and forth, and the longer the signal remained at red the more prolonged and angry was the earsplitting howl. I marvelled that such discord existed and that enough steam remained to drive the pistons before an unfortunate signalman up the line, driven half insane by the noise, allowed the train to proceed.

With black smoke, soot and showers of sparks pouring in through the window and charcoal smoke from our respective burners on the compartment floor trying to get out, we paid dearly for our meals, and each time the train dived into a tunnel complex we all but asphyxiated. I wondered what Turkish railway by-law we were breaking, but when the ticket-inspector passed upon his rounds his only action was to contribute culinary advice.

The peace of the Cilician Plain offered an abrupt contrast. The terrain fell flat on its back; the temperature switched to hot and humid. Our last halt before the city of Adana was at Yenice where everyone issued from the coaches on to the station forecourt for more washing and drinking purposes. Having not done so earlier, my companions stripped to the waist beneath the water appliance and scrubbed each other's backs, removing at least some of the ravages of travel and cookery. On the move again I watched the distant mountains behind us revert to their picture-postcard remoteness as we ground into Adana three hours late, a state of affairs that worried nobody.

Adana is the fourth largest town in Turkey, but you would never believe it; or at least I couldn't. It is a typical old Turkish town with some brash twentieth-century concrete structures thrust upon it. Narrow streets become quagmires when it rains, as I know to my cost from subsequent sojourns in the place. Whenever I come this way, as I have on several further occasions, it is to find myself marooned in Adana.

This time, however, I was to remain on a train that had become my home. And I was especially pleased to do so for, characteristically, it began to rain. By the time we were back in more mountains the downpour had become a deluge. Dry rivers became rushing torrents very quickly indeed, and I think it was the Aksit that was nearly the cause of our undoing. It was, no doubt, normally a well-behaved litle stream, but the rains had turned it into a crazed brown torrent flecked with the saliva of madness. It had burst its banks and threatened the bridge. We stopped and from the windows we watched the driver and his mate issue from the big locomotive. Gingerly they proceeded on to the trestle and, near the centre, inched forward like nervous skaters on thin ice, then jumped up and down as if testing the timbers. A discussion, punctuated with much gesticulation, appeared to produce a decision and, drenched, the two men returned to the train.

Slowly, we crept over the bridge. Nobody dared breathe and children in the corridor were restrained from moving. White faces watched the engine reach the

other side, then turned to peer fearfully down at the frothing avalanche of water tearing at the bridge supports. After five of the longest minutes I can remember we were over.

With the exception of the Turk and myself we were a fresh batch in the compartment. ..... my Syrians had, with a quick salute, melted into the alighting crowd, leaving me with another mixrture of fellow travellers. But this time we had a lady amongst us, a young and not unattractive one at that, which could have caused problems had she been going further than Aleppo. The lady was Syrian, the men Kurds.

The new mountains into which we were entering were part of the Amanus range and a prelude to the plains of Syria. These uplands, glowing under the rain clouds, divided one country and way of life from another. Something about them reminded me of Scotland. But when did Fort William sprout mosques? No, this was Fevzipasa, the Turkish border station and a high-flying Turkish flag was there to prove it. A crowd of men hung about the platform, most wearing cloth caps and pre-1940 suits. I noticed this only because I was becoming increasingly aware of Arab-dressed people in the stations.

Now the land was stilled and flat. A string of camels passed by going the other way. The unchanging East was with us and I never knew when it happened.

At Aleppo we were five hours late, yet the train remained a long and unexplained time, in Syria's second city, making no impatient gestures of wanting to catch up the schedule. I think this was because the northbound Taurus meets its counterpart here and the drivers like to swap notes, the current political gags from Istanbul and Baghdad, and have a general chinwag. And the other train seemed to be equally late. However, I was beginning to realise that the Taurus Express is ALWAYS late; intending passengers check their timetables and simply add the hours it is invariably late arriving at their respective station. There is a kind of logic here, I suppose, though I couldn't see it going down a bomb in clock-watching Europe.

In Aleppo it had been the citadel that impressed me the most on subsequent visits to the city. With the exception of the pyramids this must surely be the largest man-made object on Earth. Abraham may or may not have milked his cows on the summit, but his name is the one most bandied about throughout its turbulent history. The souks of Aleppo are without equal in the Orient. Their stone vaults and passages reek of history as old as Saladin. Donkeys and heavily-laden horses come down the narrow passageways as they have for centures, and at every turn there are marvels of colour and a variety of wares. These souks give to Aleppo an identity of its own that is neither Turkish nor Damascene, and the aggressiveness of the selling has no equal in all the Mediterranean lands.

Hardly had I switched my mind to things Syrian and taken in a desert that encroaches to the very doorstep of Aleppo when, blow me, we were back in Turkey again. And we were to remain on Turkish soil, skirting the border all night. We - my new companions and I - were in a tangle of sleep at the second border village and authority was in no mood to inspect tiresome things like passports and visas. But the second Syrian border post was a different story.....

More desert and we were at the Iraqi border where the train refused to move for an hour. And by the time we reached Mosul I had lost count of the hours we were late. The raison d'etre of Mosul is Nineveh, the older city that I could dimly see across the River Tigris. The capital of the Assyrian Empire was destroyed by the Medes in 612 BC and nothing more was heard of it until the Sassanid period, when the existence of the town of Budh Ardashir is recorded. Mosul, meaning confluence - that of the Wadi Khosar and the Tigris - first appears in AD 636, as the name of the town on the right bank. It grew to a great city in the Abbasid period, a centre of commerce and industry, with fine mosques and palaces. It remained so under successive dynasties until the destructive Mongols, and later Tamerlane, came along to spoil things. Mosul never really recovered from these blows, though its position in a fertile belt of oil-bearing land and on a main caravan route from Aleppo to Persia assures it a certain significance.

Before 1918 it had a reputation for dirt, remarkable even in the Ottoman Empire, which is saying something. No doubt improvements have been made, but I was unable to judge for myself. The railway skirts the city and goes on an excursion round the corporation cemeteries. I stared a long time at the distant mosques and with a particular interest in one of them. The Great Mosque has taken a leaf out of Pisa's book and is supposed to lean to commercial advantage. But either the train was on the tilt or my Turkish friend's firewater was more potent than I thought, for every minaret in sight stood as straight as a soldier.

The Tigris led us out of Mosul. We had picked up two new recruits at the station, including a massive tribesman of the desert. he looked naked without his camel, though he was swathed in a voluminous djellabah over which, for good measure, he had wound a carpet not much smaller than the one covering my dining-room floor. It was a typically cool desert night, but it was hardly THAT cold. "You going far ?" I enquired tentatively. None of the Kurds hadspoken to me before, being content to smile and nod in a friendly fashion. However, here was an opportunity to transfer their friendly gestures into words by acting as interpreters, though none spoke more than a few words of English. "He goes to Baghdad", I was told. .....

We were diesel hauled now and the train trotted along contentedly with no gradients to endure. Besides us ran the Tigris like a tame serpent, and at Samara we stopped at a station of some reckoning that had strayed from the town. Our numbers down to four, our thoughts, in unison, turned to food and the ceremony of the unswaddling of the bundles and the positioning on the floor of the charcoal fires began. Soon we were feasting communally on joints of veal, pastries and a magnificent tart tenderly prepared, no doubt, by some unseen wifely hand in a forgotten village. A fresh bottle of the homemade liquid that could have been a by-product of petrol appeared from the Turkish quarter. It was shunned by some but not by me. It was night again and I had no desire to remain all that conscious. But at least there were no tunnels here or steam engine to cause near-asphyxiation during the culinary preparations.

I actually slept through that night to awake at my destination. I never even saw the suburbs of Baghad before we ground into the Iraqi capital's grandiose West Station, which looks better from the outside than it does within.....

p. 174. Following a failed attempt in 1972 to cross the Libyan - Egyptian border while engaged on a round-the-Mediterranean journey (by rail so far as possible), the author decided to fly to Cairo and backtrack from there.

"A strange method of acquiring tickets greeted me at Cairo Main Station that had me scampering from one kiosk to another collecting an assortment of pieces of paper deemed necessary for rail travel to Alexandria. Porters and touts were quick to smell out a foreigner, and I was directed from pillar to post by a retinue of little men all clamouring for reward. One had an original line in rackets.

"Foreigners need a special permit to travel", he told me, "I'll get one for you", and away he ran. But I followed him to a crowded railway transport office where I watched him pause, draw a piece of paper from a sheaf in his jacket pocket and return. I looked the man in the eye and smiled grimly. He had the

grace to smile back sheepishly and I gave him three cigarettes for his initiative.

My train, I found, was air-conditioned and occupied mostly by businessmen. Not my sort of train at all. The 129-mile journey, normally of two and a half hours, took three. It was also dull. Dull, that is, except for the panoply of the green, cultivated Nile Delta with its palms and exaggerated lushness though which the silver-coached so-called express, headed by its heavily-armoured diesel unit, sped importantly. As well as air-conditioning there were sun visors and smoky-blue windows and uniformed waiters who dispensed refreshments at the flick of two fingers. I yearned for my broken carriages and verminous Bedouins.

The Nile came into sight between Tanta and Damanhour when the train rolled across a large bridge spanning the wide main stream. Thereafter a system of canals criss-crossed the flat countryside and high-masted feluccas glided disconcertingly across the fields.

Alexandria I found to be something of a sham. The seafront was modern, impressive and European. Graceful stone buildings and slender mosques pleased the eye. The old city was long ago destroyed and buried by desert sands that lap at the doorstep. In its place had appeared the standard Egyptian phenomenon: mean streets and unsavoury smells.

My request for a ticket was greeted with patient resignation. The man behind the grill indicated a notice in Arabic and English above my head. 'Special permission has to be granted by the Government to go to or beyond Mersa Matruh' dictated the man in case I couldn't read.

I asked how far I COULD go. There was a brief consultation in the ticket-office. It was clear that not many Britons used the Western Desert line. A consortium of officials decided I could go as far as El Dabaa. I wasn't sure where El Dabaa was, but decided it would do.

My train was pure Arab. No businessman's special this, and no pretences of being an express either. Instead it was a happy little train of village elders and merchants who could afford the run into Alex at regular intervals. After an initial show of distrust I was accepted into the brotherhood and invited to tea.

Out in the desert there was a sudden cleansing. The stone walls of Amriya and Hamman were bleached white by the sun, while nomad tents studded the sand to lend a romantic air. One small station name held more impact than the others, an impact quite lost upon my chattering companions. But why should they bother themselves about a place called El Alamein? To them it was just another hamlet in which to eke out their days.....

I did not alight at El Alamein because its dunes and depressions would have meant nothing to me. Instead I continued to El Dabaa, another hamlet that could have been El Alamein, Amtiya or Hamman. I tramped its sand-blown, uneven street and drew curious stares, for not even old soldiers come to El Dabaa. Thereafter the road and railway passes through territory of a dying fame. Names like Fouka, Mersa Matruh and Sidi Barrani are its roll of honour.

But for me El Dabaa was the end of the ride. About 180 miles of desert separated me from Solloum and the point of my fractured land journey....

...Jordan wasn't on my planned itinerary but it was the route I had to take. This came about through my failed endeavour to pass through the territory of Israel, a forlorn attempt that for me only as far as the Suez Canal which I managed to reach by local train from Cairo by dodging various checkpoints. Finally, my onward progress was firmly balked at the hands of a slightly ruffled colonel of military transportation who wanted to know how the hell I'd got that far in the first place. "Didn't you know there was a war on?" he barked.

Thus I was forced into the air once more, this time to Jordan..... the new country into which I had been deflected promised some interesting trains And the promise was not a false one. [There follows an anecdote in which he claims to know the Queen of Jordan, and in consequence is invited to breakfast at the palace!] Having divulged the reason for my visit to Jordan I came away with the offer of no less than the freedom of the Hedjaz Jordan Railway.

In consequence I found myself ensconced in the cab of a gigantic black oil-burning Jaspanese-made locomotive at Amman station heading a 20-wagon train bound for the terminus of the southbound line at Ma'an, close to the Arabian border. Having taken me for a senior British Railways driver, I was invited to take over the controls, but wriggled out of this situation without losing face by explaining that I was trained only to operate diesel and electric traction. So, in the spirited company of a Jordanian driver, his fireman, a guard and a character brandishing an old Lee-Enfield rifle - designated as our anti-aircraft protection against marauding Israeli aircraft and guerilla infiltrators - I took my appointed place on the footplate for one of the rail highlights of my then 60-year career. We performed various loading and unloading tasks en route, though much of the journey was taken up with tea and chat with the garrulous trackside staff along the line.

At each halt these railway employees were invited by the driver to make the acquaintance of the crack BR driver from the United Kingdom and close friend of their royal family. This invariably produced more tea and a great deal of handshaking with smiles and bows all round. I'm ashamed to say that I revelled in my new-found status.

Between these lineside receptions I was given control of the train in spite of the fact that I hadn't the faintest idea of what I was doing, though the locomotive appeared to have no great objections to my lever-pulling and handle-turning. At the tiny village of Qatrana we stopped to greet another reception committee, and on a section of double track await the passing of a northbound train. A few miles away stood the celebrated ruins of Petra, the most sensational of archaeological sites, but my allegiance that day as we trundled into Ma'an was to the railway. Petra would have to wait.

A night in a railway hostel of shambolic condition and I was back in Amman, my conscience prescribing that I cease playing trains and resume my circuit. The northern section of the Hedjaz Jordan Railway into Syria was closed by one of the frequent disputes, inflated by war, arising between the two nations, so it had to be a 'servis' again that conveyed me to the border. However, I was learning the ropes so that when one official denied my passage I simply hung around until another came on duty who approved of my face and let me through. My *servis* driver on the Syrian side was a jovial Palestinian who claimed to be the father of 16 children but was outshone by a passenger boasting of 18. The road accompanied the railway with trains conspicuous by their absence.

..... I suppose it was inevitable that I should end up at Damascus railway station. I went there at the instigation of a friendly airline clerk at PanAm's booking office who claimed to close aquaintanceship with the deputy station-master. And it was only through this tenuous connection that I could hope to catch a train of some sort to Beirut. A narrow-gauge railway linked the Syrian and Lebanese capitals . It was a goods-only line and I'd seen its Lebanese end three years previously. Occasional goods trains plied the single track through the mountauns and it was upon one of these that I pinned my hopes. Alas, here I could brandish no royal or presidential names to further my case, but even so, the deputy station-master was impressed with my enthusiasm, and possibly my cheek, so promised to do something about it.

I duly reported to his office next day as reqested, but no

train to Beirut of any sort put in an appearance. Neither did the deputy station-master. I gave it up as a bad job and made tracks for the *Servis* station.

The road to Beirut was a surprisingly fine undertaking, splendidly engineered and supported by magnificent scenery. All of which encouraged the speed cravings of both Syrian and Lebanese drivers. On that Friday afternoon the road was a battleground of driers released from offices and the pile-ups were legion. I saw two smoking wrecks within the first ten minutes of the drive. A huge cement plant thrust its ugliness unto the beauty of mountain and forest, while a rash of tin-roofed restaurants lined the hairpin road out of Damascus.

..... The frontier barriers between the two countries were some five miles apart. The great Aab unity proclaimed by Syrian propaganda posters seemed to have come unstuck here as machine and anti-tank gunners aimed their weapons convincingly into each other's territory. Since my earlier visits to these parts, the whole region had erupted into either open or near-open war. Traffic jams were as bad in Beirut as they are in London or Paris with, additionally, taxi and servis drivers exhibiting a wild addiction to courting death (there are few old or middle-aged taxi drivers in Beirut).....

From the Lebanese capital I attempted to do what I had done in Eypt and backtrack along the rail route denied me earlier. This involved a servis drive to beyond Tyre where I dodged two checkpoints and nearly found myself in Israel. But a miss is as good as a mile and I ended up, as you would expect, being ever so slightly arrested and returned to whence I had come with a flea in my ear. if nothing else I had, for nearly 60 miles, followed closely the one-time coastal line constructed by British engineers between Beirut and Cairo its broken sections still visible half-buried in the sand.

It was hardly surprising that nobody had heard of St. Michael's station. It turned out to be little more than a wayside halt, yet it was the Grand Central of Beirut. But, this notwithstanding, it was a pleasure to be back aboard a train, even if the little red two-coach diesel was of minimum inspiration. We left the city by the tradesman's entrance, slinking out through a jungle of dilapidated tenements divided by mean refugee-choked streets and, on the seashore, filthy black beaches.

The working railway, or what there is of it, north of Beirut obviously took a back seat in Lebanese economic circles, but was a fine vehicle and safer than the roads for viewing the sensational coastline. In unison with the Corniche road it took hairpin bends, ploughed through tunnels in the rock headlands and only strayed inland to avoid the seaside towns.

Banana palms growing on the shores of the tideless sea heralded ancient Byblos. A paradise for the excavator with its prehistoric Phoenician, Roman and medieval sites in muddled array, it was the sea and land that stole the show, particularly the rocky gorge down which the Dog River scampers. Near Tripoli.... we trundled past the terraced saltpans that turned the countryside into a chess-board with little iron windmills as pawns.

Back in Syria we came to classical Emesa which is now Homs. Far older then its Libyan namesake, the modern blocks of flats compared no more favourably with its unimaginative minarets, 'square black towers of basalt' as someone called them. The market place was full of Bedouins on a shopping spree from the desert.

If Homs was disappointing, the next city along the line made up for it. Hama sat astride the Orontes in a valley of blood-red soil sprouting great bursts of blossom. But what makes Hama unique is, of course, its water wheels. The creaking of the 'Norias', as they are called, is something one becomes aware of the moment of entry into the town. The biggest is 120 feet across and it creaks and groans in a never-ending tortuous clamour as it lifts water into ancient aqueducts. Smaller ones dotted the Orontes valley around the town, each one groaning miserably. I asked a native of the town how he could stand the eternal racket. "What racket?" he replied.

Across the great plains we stumbled through the granary of Syria - and stable too, for here were reared some of the finest Arab horses. Then in the midst of boredom came the unique sight of the northern beehive villages. At first they were diluted with mud houses of standard pattern but eventually complete communities of windowless beehive dwellings materialised, each housing one family.

The train ended its run in Aleppo. Here I was back once more on the Baghdad to Istanbul line. On the northbound Taurus Express the familiar stop at Adana felt like home ground....."

56:11.

"THE RAILWAYS IN THE MIDDLE EAST.

In "Der Modelleisenbahner" No. 10 1969, pp. 301-305 appeared the following article by Gerhard Arndt of Dresden - entitled "Die Eisenbahnen im Vorderen Orient." This was the railway magazine of the DDR - hence perhaps the author's emphasis on the complications of Capital and finance and intrigue by the Tsarists!

Die Bagdadbahn; The Baghdad Railway. There are surely few railways in the world about which so much has been written as the Bagdadbahn. For years it was used as a means to reach political ends. Above all it was intended to act as the backbone for German imperial ambitions in the Near East. Britain was the greatest opponent in the game around the so-called German Bagdadbahn. The English feared the possibility of a transit route avoiding the Suez Canal. But in addition France, Italy and not least Tsarist Russia were interested for various reasons in the possibilities of railway construction in Turkey. German Capital was however able to see off all competition and gain the enormous contract for the 'Bagdadbahn'. The Anatolian Railway Company (Chemins de Fer Ottoman d'Anatolie) was formed on the basis of a contract between the Turkish Government and the Deutsche Bank, on 4th. October 1888. It operated a system 1063 km. long. As a result of the confusions and dismal situation within the Ottoman Empire the construction of the line lasted from 1904 to 1940. Each of the major powers claimed the right to be able to interfere in the internal affairs of Turkey. A cruiser would even be stationed in the harbour of Constantinople, in order to emphasise these rights. Since railway construction in Turkey promised little profitable return, the railway companies demanded a guaranteed interest from the Turkish State. The financial situation was however so dismal and weak that even the customs dues were leased to the Powers. Payment of the guaranteed interest on major construction works was only possible if customs revenues were also appreciably increased. Germany was interested in this, England however was not. In this way almost everyone could interfere one way or another in the Turkish administration. The Anatolian Railway Co. had by 31st. December 1892 succeeded in opening the 486 km. long line Constantinople (Istanbul) (Station Haidar Pasha) - Ankara. The Turkish Government was interested in a continuation of this line. Tsarist Russia however brought the project to nothing, since it had certain rights for construction in the Caucasus region. So on 15th February 1893 a new contract was signed for the construction of a railway branching off from Eskisehir to Konya, 434 km. This line could be opened for traffic already by the 29th. July 1896. The route Ankara Sivas - Diabekir - Bagdad

was explored once again. Apart from the technical problems (of mountainous terrain) there were also political ones, since it was not possible to overcome the Russian resistance. So in 1899 a decision was reached to use Konya as the departure point for the Bagdadbahn. German technicians busied themselves with surveying a route for the line. The Turkish Government was interested in keeping the line inland well out of range of any potential enemy naval attacks. The Bagdad Railway meant above all a strategically important link to the "troublesome" Arabia. German Capital, if it was truly interested in reaching any target at all, would have to satisfy itself with a lower profit level. The negotiations dragged on till 1892. There was no shortage of suggestions from the other competing powers. England attempted to push through the Willcocks Plan - a line from Tripoli to Baghdad totally omitting large sections of Turkey. On 21st. Jan. 1892 the Anatolian Railway Co. succeeded in gaining from the Turkish Government the 99-year concession for the actual Baghdad Railway Konya - Baghdad, as well as an extension to the Persian Gulf. In order to fulfil the conditions of the concession, the Imperial Ottoman Bagsdad Railway Company (Societé Imperiale Ottomane du Chemin du fer de Bagdad) was formed in Constantinople, with a capital of 15 Million Francs. The Anatolian Railway Co. took over the operations. Nevertheless it was not until 5th. March 1903 before the financial questions were sorted out and the construction could begin in July 1903. The terrain permitted speedy progress, so that in October 1904 Bulgulu, 200 km. was reached. The next section via Adana to Aleppo traversed the Taurus and Amanus mountain ranges. In expectation of constructional difficulties with tunnels and viaducts and associated expense, a shortage of money made itself felt. It was necessay to create a financial syndicate, in which as well as German also French, Austrian, and Swis capital was represented. This Syndicate took over the second and third tranches of Bagdadbahn shares at a cost of 100 to 119 Million Francs, so that construction could proceed further. Nevertheless four years had gone by. On 2nd. June 1908 the new contract came into force, covering the second construction stage to Tell Helif, 840 km. from Bulgulu. The works were immediately begun at different sites. The Bagdadbahn Company had acquired the majority of shares of the English - French Mersin - Adana Railway and in this way acquired a comfortable supply route for materials, that later became an important branch to the Mediterranean. Just how important the Bagdadbahn Company viewed this link to the sea is revealed by the fact that they sought an additional concession for another branch via Troprak and Kola to Alexandretta even though there was no kilometre guarantee given here by the Turkish State. In the contract of 21st. March 1911 when the Company also got the concession for the last section, Tell Helif - Baghdad, around 700 km., it got the concession for this branch as well. The further construction in the direction of Bagdad brought the line continually further into the areas of interest of other great Powers; in order not to increase the opposition from the English, the Company decided to drop plans for the construction further from Baghdad to Basra and attempted to form a joint company together with the English for this line. The most important harbour on the Persian Gulf, Kuwait, had been occupied by the English a short time before, once it was kown that the Bagdabahn was intended to end at Basra. The Turkish Government had to recognise the Sheikhdom of Kuwait and remove it from their area of influence. As such, without the support of England any further construction was impossible, since at that time Basra was a very poor harbour and the surrounding area was swamp, apart from the sand bar at the mouth of the Tigris. In this period of political activity the construction works continued simultaneously at several sites. The Company for the Construction of Railways in Turkey, with the Frankfurt firm of Philip Holzmann as main contractor, did all they could to accelerate the building works. Soon the northern section as far as Ulukisla, 237 km., could be handed over to traffic. In the central section the line from the southern edge of theTaurus was opened, from Dorak to Yenidse, a station on the Adana line, reached by using a 25km. section of the line from Mamure. By the year's end connection was achieved to the Aleppo via Muslimiye. Originally Aleppo should have been joined to the main line of the Bagdadbahn by a branch line, a link to the French-owned standard-gauge line Aleppo - Homs - Tripoli. The local population however demanded the routeing of the main line directly via Aleppo. In this way the curious situation came to pass, that 15km. before the city the line became double-tracked, forming both the entry from Constantinople and the exit towards Baghdad. In the northern section building had pushed forwad to Karapunar, 53 km. from Ulukisla, Renewed financial problems, the outbreak of the Balkan War and the Turkish-Italian War however left the railway making only very slow progess, especially in the Taurus mountain region. In the flatter country of the southern section the line reached Tel Kotchek before the outbreak of the World War. In 1917 the head of track had reached Tel Ebiad. In the southern section the first sod was turned on 28th. July 1912. This very difficult section was supervised by the German construction engineer Meissner. As had already been the case with the Hedjaz Railway, his language skills, administrative and organisational abilities and his knowledge of the customs of the peoples of the Near East were of great value. The difficulty of this section is marked by the total absence of stone in the Mesopotamian plain as well as the transport problems. The river transport on the Tigris was of low capacity and partially dependent on differences in the river level. Because of the regular flooding firm dams and embankments were necessary for protecting the route of the railway. So large quantities of stone had to be brought with great effort and difficulty by rafts and pontoons from the mountains. In addition was the fact that Baghdad lay 500km. from the nearest proper deep-sea harbour and all building materials had to be transshipped several times (ship, river boat, pontoon and railway). So by the end of 1914 only the section Baghdad - Samara, 118 km. was ready for operation. The majority of the materials for the whole of the Bagdadbahn - rails, points, bridges, also rolling stock and locomotives - was brought from Germany. Since the line was built for express train speeds (planned top speed of 75 km/h apart from in the mountain regions) Henschel & Sohn in Kassel, for example, built four-cylinder 4-6-0 express locomotives with additional oil firing for the section Konya - Bulgülü. Borsig of Berlin was also involved in major deliveries (see below). At the outbreak of the First World War the work on the southern section had to be suspended, since all routes for delivery of supplies were blocked and transport over the northern and central sections was not yet possible. In spite of all efforts it was not possible to complete the missing sections, 64 km. in the Taurus mountains, of which 10.5km. in tunnel, and 32 km. in the Amanus mountains, of which 8.5 km. in tunnel. One had to make do with primitive links, at first with ox wagons and later motor lorries. On Turkey's entry into the war on Germany's side, all financial questions were suddenly made clearer. Germany placed means at the disposal of the builders and work went ahead at high speed, since these sections were now suddenly of vital importance for the Turkish/German armies operating in Palestine and Arabia. Here was revealed what purpose the Bagdadbahn really had and why Germany had been so interested from the outset in its construction - i.e. the possible threat to Egypt and India. In spite of all the efforts to get these sections operational as soon as possible, the construction of the tunnels especially took a great deal of time. The longest tunnel near Badsche, with a length of 5km. through the Amanus moun-

tains, proved particularly troublesome. It was only on 15th. November 1916 that the last tunnel in the Cilician Taurus mountains was finally bored through and operation began immediately with a 60-cm. gauge Feldbahn and fireless locomotives. On 30th. April 1915 the provisional bridge over the Euphrates could also be replaced by a permanent ten-span steel bow-girder bridge. The first standard-gauge train passed through the Taurus mountains on 9th. October 1918 and travelled to Nusaybin - the end of rail had in the meantime reached thus far south in the middle southern section. Immediately the war broke out the English had occupied Basra and laid a military railway for supplying their army. Since the materials had to come from India the metre gauge was employed. At first the embankments were in fact built to standard gauge dimensions, presumably with a long-term intention in mind to connect with the Bagdadbahn. During the campaign however the system was extended until Basra [sic] 568 km., further in metre gauge, and extended with several branch lines. After capture of Baghdad and their advance towards Mossul they diverted the standard gauge line to Samara via Baidji to Schergat and in this way reached within 97 km. of Mossul. After the hostilities were ended the rails were removed as far back as Maidji (97 km. so that the tracks ended for several years 213 km. from Baghdad. In the 1930's the idea was even considered of totally removing the lines and reaching Mossul using the roughly-parallel metre-gauge line through Kirkuk. The English Mandated Territory attained autonomy in 1932. Had it come to this demolition, the entire Iraqi State Railways system - following lengthy negotiations with England an independent national railway administration was formed in 1936 - would have had a single-gauge. Nevertheless, with the correct understanding that this important line could be part of a through transit route to Europe without change of gauge, work was commenced on rebuilding the section that had been dismantled and extending it to Mosul and Tel Kotchek. Through the territorial adjustments made after the war, The Bagdadbahn now partially formed the actual border betwen Turkey and the Mandated Territory of Syria. The border was so close to the line that if one got out on one side one found oneself in Syria. A part of the line, the triangle around Aleppo, became part of Syria, and later the Turkish railways built an avoiding line. Until 1935 the 'Taurus Express', introduced from 1927, ended in Nusaybin. The French then built according to the old plans the 80km. long section on to Tel Kotchek. From the end point a road coach service connecting with the 'Taurus Express' conveyed travellers to the English metre-guge line at Kirkuk. After a 323 km. journey the sleeping-car train then ended in Baghdad North - for through traffic an unsatisfactory situation. In consequence work was continued to close the 280 km. long gap. However the bad weather conditions in 1938 delayed the works, so that the head-of-rail still only reached to within 25 km. of Mossul. On 8th. January 1939 the Taurus Express travelled for the very first time over the Iraqi border; difficult work on rock cliffs north of Mossul allowed the continuation of the route to Mossul from the 31st. March 1939. On the same day the station was formally inaugurated. As already mentioned, the British had laid tracks in the southern section to Schergat but later dismantled it. In all probability the base of the line, especially the last section Baidji - Schegat, had been built to wartime standards, so it would in any case have been necessary to rebuild the line totally. Another 1000m. long tunnel, already planned by Meissner Pasha, had to be drilled some 9km. south of Mossul, before the connection to the southern section could be accomplished. On 17th. 17th. July 1940, after 36 years in the building, the entire line Istanbul Haydar-Pasha - Baghdad commenced operation. From this time on the 'Taurus Express' operated three times a week, albeit via Ankara.

This railway, which had casused such concern and interest through the political activities of the then-Great Powers, finally began through operations quietly and barely noticed, while in Europe the Second World War was already under way. Because of the war freight traffic on the Bagdad line soon reached high levels, since sea traffic in the Mediterranean had been severely afected by war conditions, and a great deal of the imports from the Orient therefore had to come this way. Only in 1960 did the last phase of the line begin, with the regauging and rebuilding of the metre-gauge line Baghdad - Hilleh - Nasriji - Basra and several branches. A great deal of the metre-gauge route could be reused for this line. The Iraqi engineers were helped in this work by Soviet technical advisors; also the rails, at 43kg./m, were delivered from the USSR. The rails were laid on concrete sleepers of the Hungarian type, from a factory constructed in Baghdad. The works were rendered more difficult hy the swampy conditions.At the end of 1967 it was possible to run freight trains at reduced speeds; by the middle of 1968 pssenger traffic was also recomemnced on the 583 km. long line. From now on only 11 hours were needed for the journey as opposed to the 17 hours in narrow-gauge times. In a while it should be possible to extend the 'Taurus Express' to Basra. It is planned to use Piullman and CIWL sleeping Cars. Many travellers today would rather undertake a railway trip with comforts than a journey by air. The Polish Export Association Pafawag has delivered express passenger coaches to the Bagdadbahn and from Czechoslovakia diesel locomotives have been delivered, which for the time being operate over the former The 'Taurus Express' at present requires 73 hours for the 2690 km. journey fron Haydar Pasha to Baghdad.

The table here shows the important distances:

Haydarpasa: km. 0.
Ankara: 577 km.
Adana. 1243 km.
Aleppo. 1544 km.
Nusaybin. 1987 km.
Tel Kotchek. 2070 km.
Mossul. 2190 km.
Baghdad. 2890 km.
Basra. 3529 km." —.

Year	Axles	Type	WksNo.	Traffic No.
1903	0-6-0	Shunter	5263	
1905	2-6-0	Traffic loco.	5474	
1905	2-6-0	ditto	5475	
1905	2-6-0	ditto	5476	
1905	2-6-0	ditto	5475.	
1911	2-6-0	s'h'td tender loco	8056	
1911	2-6-0	ditto	8057	
1911	2-6-0	s'htd freight tender loco	8171	
1911	2-6-0	ditto	8172	
1911	2-6-0	ditto	8173.	
1911	2-6-2	ditto	8173	
1911	2-6-2	ditto	8174	
1911	2-6-2	ditto	8175	
1912	2-6-0	Passenger train loco with 6-wheel tender	8382	617
1912	2-6-0	ditto	8383	618
1912	2-6-0	ditto	8384	619
1912	2-6-0	ditto	8385	620
1912	2-6-0	ditto	8386	621
1912	2-6-0	ditto	8387	622

Locomotives delivered for railway construction in Turkey.
1912 0-6-0T Construction loco. 8476 - 8480. Ns. 1 - 5.

56:12.

MEMORIES OF THE REHOVOT ATTACK OF FEBRUARY 1948.

Brian Kesterton of Charmouth, Dorset, has written:

"In 1947/48 I spent the useful part of my military service as part of the military train crew travelling from Kantara to Lydda and back. I was the Security Corporal or Sergeant on the train every three or four days and found the experience fascinating and the trains lightly romantic albeit rather uncomfortable, slow and sandy. I have always felt that the story of this railway line deserved much more publicity than it has received.

...When I was travelling the general impression was that the track was laid straight onto the sand, although I do know that a huge force of Egyptian labour was employed in moving sand and other construction work as necessary, numbering as many as 26,000 according to some reports. I recall hearing that an Egyptian troop train was destroyed by bombing between Kantara and El Arish in the summer or autumn of 1948. [I have no record of this incident. Ed.] This is not surprising as a train in the desert would make an easy target.

Regarding ex-Corporal Morgan's account published in Harakevet (from 'Palestine Scrapbook'), I was part of the military train crew on that train blown up about half a mile north of Rehovot station on 29th. February 1948. My recollections are not quite the same as Corporal Morgan's. The military section of the train was at the rear, as usual on this daily train, and three mines (of four laid) exploded beneath the 3rd. Class military coaches causing the casualties Corporal Morgan mentions. The explosions caused the train to split into two sections. The front undamaged section continued for about 200 yards towards Lydda Junction before the driver pulled it up. The explosions occurred at about 9.40 am and the undamaged section of the train eventually left the scene for Lydda at about 11.45 am.

I believe that, near this particular section of line, another engine had been derailed earlier and was lying at the bottom of an embankment nearby. I wonder if this was the damaged engine seen by Corporal Morgan. I have always understood that the explosions, detonated from a nearby orange or eucalyptus grove, were the work of the Irgun Zvai Leumi and not the Stern Gang. I may be wrong about this, but I am not sure the Stern Gang were still operating in 1948."

56:13.

A TRIO OF ACCIDENTS.

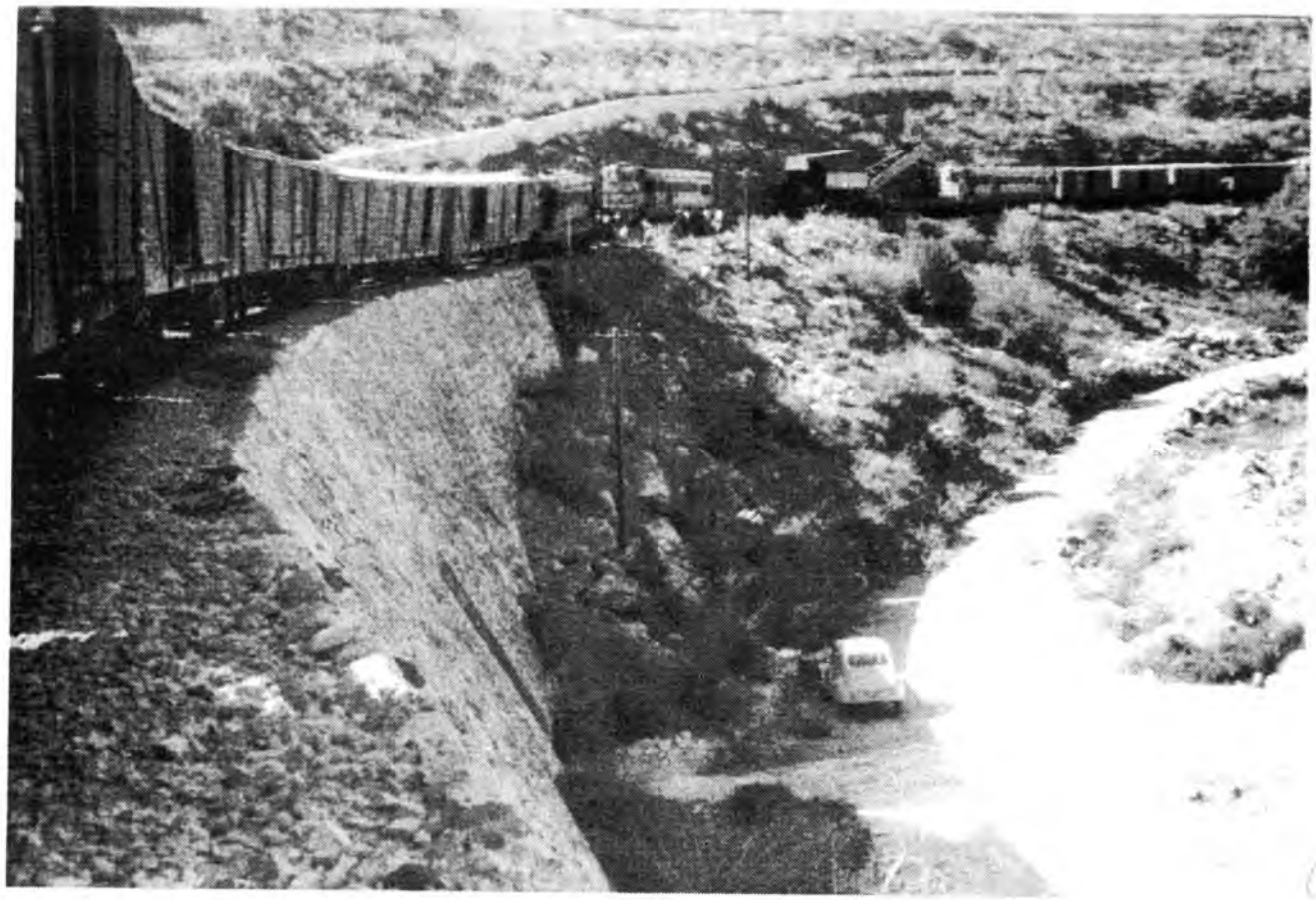
By Paul Cotterell.

The accompanying three photos are from the large, but very unsorted collection of the IRM Archives.

The first shot is one of a series showing the aftermath of the celebrated collision between two passenger trains at Bet Yehoshua in December 1963. (Steve Tish wrote a detailed article on this accident in Harakevet 23:9.) G12 118 has mounted sister loco 105, and the view well illustrates how fortunate the crews of both locos were to escape with their lives - one shudders to think what would have been the outcome if, for example, 105 were facing the other way round. A crowd of interested locals has gathered to watch the recovery operation, though it all seems to be too much for the woman and her two daughters in the right foreground. 118 is about to be lifted off 105 by the diesel crane at left, with assistance from the Cowans Sheldon steam crane glimpsed at right. (This is, I think, CS 3855 of 1918 now at the Museum.)

The second photo was taken near Bar Giyyora in the Judean Moutains. The date is unknown but sometime in the 1960's or 1970's. A freight train from Jerusalem, double-headed by G12s, has derailed gracefully, the results could easily have been much more horrendous. The breakdown train has arrived on the scene - another G12 propelling a diesel crane and hauling several vans which would have carried all the equipment necessary for the rerailing operation. This would have been a quite complicated exercise given the location, and I imagine that simple jacks were soon found to be more effective than the crane. [NB: This does NOT appear to be the same incident as the sabotage derailment, also of a double.-headed freight but heading towards Jerusalem, illustrated in 6:11 on 11/5/75. Ed.]

It appears that the Esslingen 0-6-0DH shunter (number unknown) in the third shot has split the points and gone to ground. This little contretemps took place on a wet winter's day in the marshalling yard adjacent to the Haifa East diesel depot. I would guess the date to be sometime in the 1980's. The view allows a good close-up of a Pazgas tank wagon. These were used to take fuel to the Glilot sidings just south of Herzliyya station. This daily traffic - Trains 315 (fulls) and 314 (empties) - finished in the mid-1990'as and the sidings have entirely disappeared.




אסור לעשן!
NO SMOKING!
PAZGAS

SURVIVING STEAM LOCOS IN IRAN IN THE 1970's.

Two photos of steam locos in Iran appeared on the back cover of issue 55. This is the text to accompany them and two further shots.

Mike Hudson of Bognor Regis writes: "From mid-1976 to December 1978 I was a British Rail employee based in Tehran in pre-Khomeini Iran.

Hugh Hughes "Middle East Railways" describes the first railway in Persia / Iran as being the metre gauge 'Pilgrim Railway' from Tehran to Shahr e Rey. I found two of this line's Tubize 0-6-0T's preserved, No. 1 (Tubize 662/1887) out at Shahr e Rey (south of Tehran) and the other (No. 3, Tubize 664/1187) in what was then called 'Shahanshahi Park' in the northern part of Tehran City - a long way from the railway ! [The park's name will doubtless also have changed.... Hughes states (p.101) this line opened in 1887 and closed in 1961, the terminus being named as "the Moslem shrine of Shah Abdul Azim at Rey". Photos show both plinthed locos are/were coupled to a coach. Ed.]

Next on the scene were the Russians with a 5ft. gauge railway from the frontier to Tabriz in the North-West of the country. [In 1915. See Hughes.] As has been reported in "Continental Railway Journal", after the national R.A.I. standard gauge network reached Tabriz, several former Russian locos were found in a dump at Soufian. I got there briefly and surreptitiously on Monday 8th. May 1978 and found nine dumped 0-8-0's, of which two appeared to be Nos. 309 and 408.

At Tabriz station a standard-gauge 0-6-0T was plinthed - presumably one of Krupp 1070/1 of 1929.

That was the end of my explorations, but I was able to point a business visitor towards locations of alleged steam dumps, and he had some success and gave me a copy of his list. All this of course was well before the Iran-Iraq and Gulf Wars, so a more recent report would be welcome ! I believe my reporter has since died, but I know he took a picture of the cab of an 8F 2-8-0 where the paint had peeled off to reveal an L.M.S. number underneath. His report is from Autumn 1977."

Mike also worked in Cairo for 18 months from January 1981.

1. AHWAZ - Dump of Locos 2km. south of the Station on the line to Khorramshahr.
(57 locos.)

Number	Wheels	Builder	Works No.	Date	Notes
20.01	0-4-0T	Decauville		1929	
31.21	2-6-0	Baldwin	61668	1932	"300"
31.22	2-6-0	Baldwin	61669	1932	
31.23	2-6-0	Baldwin	61670	1932	
31.24	2-6-0	Baldwin	61671	1932	
33.300	2-6-4T	Kitson	5038	1914	
34.600	4-6-4T	Kitson	5375	1924	Frames only.
34.601	4-6-4T	Kitson	5376	1924	Frames only.
41.18	2-8-0	Krupp	1802	1938	
41.19	2-8-0	Krupp	1803	1938	
41.32	2-8-0	Krupp	1816	1938	
41.34	2-8-0	Krupp	1818	1938	
41.37	2-8-0	Henschel	24070	1939	
41.45	2-8-0	Henschel	24078	1939	
?	2-8-0	?	?	?	Unidentified.
41.169	2-8-0	Crewe	1936	70578.	
41.220	2-8-0	NBL	24738	1942	"545".
41.224	2-8-0	NBL	24736	1941	
41.244	2-8-0	NBL	24730	1941	"362".
41.232	2-8-0	Crewe	1936	LMS 8014.	
41.173	2-8-0	VF	4707	1942	"1173".
42.401	2-8-2	Baldwin	64528		1942
42.402	2-8-2	Alco	70109	1942	
42.405	2-8-2	Alco	70130	1942	
42.413	2-8-2	Baldwin	64533	1942	"42.164".
42.416	2-8-2	Alco	70130	1942	
42.420	2-8-2	Lima	7913	1942	
42.430	2-8-2	Baldwin	64550	1942	"42.157".
42.435	2-8-2	Alco	70116	1942	
42.438	2-8-2	Baldwin	64545	1942	
42.441	2-8-2	Baldwin	64551	1942	
42.451	2-8-2	Baldwin	64553	1942	"42.135".
42.454	2-8-2	Baldwin	64516	1942	

Editor notes:

Our thanks must go to this anonymous enthusiast who must have spent hours in the dusty heat of Ahwaz gathering exact details of works numbers etc. - from the typescript it is clear how much effort went into the task and some pencilled corrections indicate more than one visit. Only four rusting hulks totally defeated him !

The numbering system is clearly based on that in Turkey yet different - the first digit the number of driving wheels, the second the number of carrying wheels. (In Turkey the second digit is the total number of wheels); then comes a dot and the running number within this wheel arrangement. What the later/different numbers in the 'Notes' column signify is unclear. The unidentified 2-8-0 loco was certainly of German rather than British manufacture, otherwise the reporter would doubtless have recognised it as an 8F

42.457	2-8-2	Baldwin	64567	1942	
42.460	2-8-2	Baldwin	64561	1942	
42.461	2-8-2	Baldwin	64569	1942	
42.463	2-8-2	Alco		70086	1942
42.466	2-8-2	Baldwin	64517	1942	
42.470	2-8-2	Baldwin	64518	1942	
42.478	2-8-2	Lima	7962	1942	
42.480	2-8-2	Lima	7960	1942	"42.110".
42.482	2-8-2	Lima	7958	1942	
42.483	2-8-2	Lima	7954	1942	"42.101"
42.485	2-8-2	Lima	7957	1942	
42.490	2-8-2	Lima	7921	1942	"42.118".
42.4 ?	2-8-2	Lima	7942	1942	
42.4 ?	2-8-2	Lima	7953	1942	
52.01	2-10-2	Krupp	1708	1937	
52.02	2-10-2	Krupp	1709	1937	"52.501".
52.03	2-10-2	Krupp	1730	1937	"52.502".
52.29	2-10-2	VF	5990	1951	
52.31	2-10-2	VF	5992	1951	
52.43	2-10-2	VF	6014	1952	
52.68	2-10-2	VF	6039	1952	
52. ?	2-10-2	VF	?	Unidentified.	
52. ?	2-10-2	VF	?	Unidentified.	
52. ?	2-10-2	VF	?	Unidentified.	

2. ANDIMESHK, behind the filling station on the right hand side of the road to Ahwaz.

41.01	2-8-0	BP	1775	1934.
41.11	2-8-0	Krupp	1795	1938
52.34	2-10-2	VF	5995	1951
52.60	2-10-2	VF	6031	1951
52.69	2-10-2	VF	6040	1951

3. AHWAZ M.P.D. - Preserved.
52.12 2-10-2 VF 5973 1951

4. AHWAZ - Goods Yard, south of M.P.D.
At least four unidentified locomotives comprising:
2 x 2-10-2 VF, 1 x 2-8-0 (8F), and 1 x German loco - probably Krupp 2-8-0.

5. SAVADKOOH - North side of Gaddok Tunnel in shed yard.
2 Unidentified locomotives, believed to be Henschel 2-10-0's of 1939. [15 were built. Ed.]

Below: Shahr E Rey Photo M Hudson

Abbreviations: NBL is North British Loco of Glasgow, BP is Beyer, Peacock of Manchester, VF is Vulcan Foundry of Newton-le-Willows. Interesting also is how the works numbers of NBL and Henschel seem remarkably close in sequence

Hughes lists 'Persian' motive power on p.107. A comparison shows:
- The Ahwaz dump includes all four of the dainty Baldwin 2-6-0's built for the "South Persian State Railway".
- The Decauville 0-4-0T was one of two, and the only one to get its new number in 1938.
- The three Kitson tanks are also all of their kind.
- There are four of the 23 Krupp 1938 2-8-0's, two of the 15 Henschel 2-8-0's, and the unidentified 2-8-0 loco listed next - which was clearly sufficiently different that our reporter did not place it with the two classes above - may have been one of the ten Esslingens 41.51-59 of 1938.
- Of the six LMS-type "8F" WD 2-8-0 locos at Ahwaz Dump, 41.173 is, according to Hughes (Appendix 'G', p. 123), indeed VF 4707 but built in 1936, not 1942, later WD 581, shipped to Persian in 3/42. This would make it a former LMS loco too. 545 and 362 are WD numbers, "1173" may be a remaining earlier dirty/painted over version of 41.173.
- There were 63 Vulcan 2-10-2's - 13 are accounted for in these lists.
- Hughes lists the 92 USATC 2-8-2's in Iran on p. 125, Appendix 'H' - of which 26 are shown at this time at Ahwaz. These had WD/USATC numbers in the 10XX/11XX range, but although Hughes lists 1170 and 1171 (Iran 41.404 & 41.405), 1172 (41.489) and 1175 (41.425), there is no 1173 to match the number on the 8F above.

Above: Tehran - Shahanshahi Park Photo M Hudson

56:15.

Back Cover Photo.

From Paul Cotterell comes this enlargement of a tinted postcard of Haifa Station (now Haifa East). The card is courtesy of Shimon Futterman. The picture is probably from ca. 1920, as it shows one of the former L&SWR 0-6-0's hauling former Egyptian 6-wheel coaches of the type that were soon replaced by the new stock from Britain purchased after this date.